A STUDY TO ESTABLISH

BASELINE DATA ON THE RETIREE POPULATION'S PERCEPTIONS OF ACCESS AND HEALTH CARE DELIVERED THROUGH OUTPATIENT SERVICES AT IRELAND ARMY COMMUNITY HOSPITAL

A Graduate Research Project

Submitted to the Faculty of

Baylor University

In Partial Fulfillment of the

Requirements for the Degree

of

Master of Health Care Administration

by

Captain Maria I. Morrill, MS

April 1987

TABLE OF CONTENTS

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION N/A	1b RESTRICTIVE MARKINGS N/A
2a. SECURITY CLASSIFICATION AUTHORITY N/A	3 DISTRIBUTION / AVAILABILITY OF REPORT Unclassified/Unlimited
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE N/A	
4. PERFORMING ORGANIZATION REPORT NUMBER(S) 103-89	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION Ireland, Army Comm Hosp.	6b. OFFICE SYMBOL (If applicable) N/A
6c. ADDRESS (City, State, and ZIP Code) Fort Knox, KY	7a. NAME OF MONITORING ORGANIZATION US Army-Baylor University Graduate Program in Health Care Administration
	7b. ADDRESS (City, State, and ZIP Code) AHS San Antonio, TX 78234-6100
8a. NAME OF FUNDING / SPONSORING ORGANIZATION N/A	8b. OFFICE SYMBOL (If applicable) N/A
	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER N/A
8c. ADDRESS (City, State, and ZIP Code) N/A	10. SOURCE OF FUNDING NUMBERS

PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification) A STUDY TO ESTABLISH BASELINE DATA ON THE RETIREE POPULATION'S PERCEPTIONS OF ACCESS AND HEALTH CARE DELIVERED THROUGH OUTPATIENT SERVICES AT IRELAND ARMY COMMUNITY HOSPITAL

12. PERSONAL AUTHOR(S)
MORRILL, MARIA I.

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
FINAL	FROM 7/86 TO 7/87	87/4	111

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	Medical Department Activity (MEDDAC), Reduction in Force (RIF) Ireland Army Comm Hosp (IACH), Automated Quality of Care Evaluation Support System (AQCESS).

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This study was done to recapture the retiree population around IACH, Ft. Knox, KY. and to implement a marketing strategy which would attempt to recapture a portion of the retiree market segment that had been diverted to the civilian medical community.

Keywords:

20. DISTRIBUTION / AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS	21. ABSTRACT SECURITY CLASSIFICATION N/A
22a. NAME OF RESPONSIBLE INDIVIDUAL Major Leahy	22b. TELEPHONE (Include Area Code) (512) 221-2324/6345
	22c. OFFICE SYMBOL

DD Form 1473, JUN 86 Previous editions are obsolete. SECURITY CLASSIFICATION OF THIS PAGE

APPENDIX (continued)

LIST OF TABLES

CHAPTER I

Introduction

An issue which often arises in today's health care arena of escalating costs and diminishing resources is the allocation and distribution of medical care to the various groups of beneficiaries eligible for that care. In a recent issue of Officer's Call devoted entirely to the topic of Army medical care, Lieutenant General Quinn H. Becker addressed the Army's leaders:

> The time has come to set the record straight. As the Surgeon General, I am dedicated to telling the Army that its health is excellent and is practiced by thousands of highly competent, proud professionals who are committed to serving our soldiers and their families. I am pleased to have this opportunity to report to you on the state of the Army Medical Department . . . We are a very large and diverse organization. We are charged with accomplishing all the various missions necessary to ensure the health of the soldier - in peace and in war. That's a big task, and it's made even more challenging because we provide care to military family members and retirees as well.[1]

A specific element of this 'large and diverse' organization, the Fort Knox Medical Department Activity (MEDDAC), had its mission delineated by higher authority. That mission, as stated, is to "provide health services to active and retired military personnel, their dependents, and other personnel, as authorized . . ."[2] The allocation and distribution decisions have been specified by the Department of

the Army. The eligible beneficiaries for military medical care are easily identified. However, the emphasis has become somewhat muddled in the provision of that care to the various groups, particulary to the retirees and their dependents.

Conditions Which Prompted the Study

The foremost consideration in proceeding with the course of this study was the perception by the MEDDAC's leadership that retired military personnel were dissatisfied with their ability to access the outpatient services at Ireland Army Community Hospital (IACH). It was perceived that the retiree population, which had been discouraged from using the facilities during the physician shortage of the late 1970's, still believed they were unwelcome at the hospital.

This perception of dissatisfaction was identified as an area of concern for the retired community and the hospital's public image relations program. The chain of command felt that since the hospital staffing had improved over the course of the years, it was necessary to implement a marketing program which would attempt to recapture a portion of the retiree market segment that had been diverted to the civilian medical community.

Historical Background of Decreased Staffing

Beginning in 1976, a severe and prolonged Army-wide shortage occurred in the number of Medical Corps officers available for active

duty. This shortage led to the reduction of various hospital services and necessitated the total curtailment of outpatient services for retirees and their dependents at IACH. These curtailments were necessary in order to continue good quality medical care, with the remaining limited resources, to the active duty soldiers and their family members. Prior to implementing the impending changes, the hospital used all appropriate communications channels to inform the affected population of the reduction in services.

In conjunction with the physician shortage, the MEDDAC experienced a reduction in force (RIF) of civilian employees. This RIF was directly attributable to a reduction in authorizations imposed by their higher headquarters, Health Services Command (HSC). The hospital had planned to utilize civilian contract physicians to augment the lack of military doctors; however, unanticipated recruiting difficulties were experienced. Problems in hiring civilian nurses, pharmacists, orderlies and physicians contributed to the overall shortages. To date, it has been relatively complicated for the Fort Knox MEDDAC to hire various civilian health care providers. This recruiting problem was derived partly from the numerous employment opportunities and competitive salaries available in the nearby Louisville medical community.

During the last decade, the required, authorized and assigned physician strengths at IACH had decreased from:

	Required	Authorized	Assigned (Avg)
1976	91	72	66
1985	65	52	57

exhibiting a twenty-eight percent decline. The lowest census of thirty-nine authorized physician slots occurred in 1980, with an assigned strength attained of fifty-five doctors that year. The assigned physician strengths (APPENDIX A) fluctuated upward and downward depending on HSC's physician allocations, bottoming out with fifty assigned doctors on staff in 1984. This depletion of health care providers was accompanied by a normal census increase of the eligible retiree population.

Since 1976, an increase in census of 17,304 to 24,739 retiree beneficiaries occurred in the Fort Knox Catchment Area (APPENDIX B). This increase translated to 7435 individuals, or a forty-three percent retiree population rise within the same ten year period. The forty-three percent retiree population increase coincided with only an eight percent increase in the aggregate workload for retiree outpatient visits (APPENDIX C). In light of the minimal workload experienced, the retiree population was identified as a potential target market.

In the course of deciding to recapture the retiree market, a significant event occurred which precipitated the need to increase all categories of productivity. IACH was selected as a test site for HSC's Demonstration Project, which, when implemented, would have meant increasing hospital staffing to the fully required level. This made the recapture of the retiree population even more critical to the organization's overall efficiency and effectiveness.

Demonstration Project

In July 1985, Health Services Command developed a proposal for a Demonstration Project which would have a significant impact on the delivery of health care at Fort Knox. The project proposed that the staffing at two HSC medical treatment facilities (MTFs), [US Army MEDDACs at Fort Campbell and Fort Knox], be increased to the fully required level. The objective of the project was the subsequent measurement of the effects of this staffing level on workload, patient and provider satisfaction, and overall quality of care. The Demonstration Project was planned to be implemented over a two year period, starting in FY 86 with the collection of baseline data. In the subsequent year, IACH would be fully staffed and the baseline data elements would be remeasured.

The ultimate goal of the project was "to demonstrate for the Army leadership the effects of full staffing on MTF performance and patient satisfaction. By comparing these results with the marginal costs incurred, decision makers can make informed decisions regarding optimal levels of staffing."[3] An additional anticipated benefit would be the validation of in-house costs for use in comparison with contracting alternatives.

The Demonstration Project was to be evaluated in four major areas; workload recapture, patient and provider satisfaction and quality of care. The quality of care delivered would be evaluated using the

Automated Quality of Care Evaluation Support System (AQCESS), the number of malpractice claims filed against the facility, and the number of Inspector General Action Requests.

Fort Knox MEDDAC was to have an increase of 281 personnel, including 13 medical corps, 9 medical service corps, 17 nurse corps, 3 warrant officers, 84 enlisted and 154 civilian personnel. The majority of the personnel were to be assigned in direct patient care areas. A complete delineation of the allocated manpower is provided in APPENDIX D.

Due to this anticipated increase in staffing occurring over the FY 86 and FY 87 timeframe and full staffing due on board by October 1986, the subsequent need was recognized to increase workload. This recaptured workload was to be derived from a decrease in Civilian Health and Medical Program of the Uniformed Services (CHAMPUS) utilization, supplemental care costs, and Direct Health Care Provider Program costs.

CHAMPUS costs for the Fort Knox catchment area had escalated since 1982 from $664,580 to $946,047 in 1985, for approximately the same number of patients utilizing the outpatient civilian services covered under CHAMPUS. Retiree usage of CHAMPUS had remained constant over the four year period as had active duty dependent's usage. Yet, CHAMPUS expenditures had increased over forty-two percent (APPENDIX E).

The results of a Department of Defense Survey conducted in 1984 concluded that hospitals must improve outpatient services to dissatisfied patients before they could begin to fill unused hospital beds and cut the costs of CHAMPUS, the civilian health care alternative for service beneficiaries. The survey results also showed that once beneficiaries deserted medical clinics for civilian care paid for by CHAMPUS they very seldom returned to military facilities for inpatient hospitalization.[4]

Beginning in 1980, the Defense Department had tried a number of programs to cut the cost of its medical system, especially CHAMPUS, which had climbed in cost from $700 million to a $1.5 billion system over the last five years. In the last few years, military hospitals reported fewer patients despite efforts to recapture them from CHAMPUS. "If the Department of Defense wishes to increase the inpatient utilization of its hopitals by recapturing CHAMPUS workload, it must focus primarily on recapturing retirees and survivors in the outpatient setting. Since beneficiaries rarely switch providers, failure to provide care to them in the outpatient setting will severely minimize any recapture in the inpatient setting."[5]

For the various reasons stated above, i.e., public relations, increased staffing necessitating increased workload, and an attempt to decrease CHAMPUS costs, the need was recognized for recapturing the retiree population in IACH's catchment area.

Statement of the Research Problem

This research problem proposes to establish baseline information on retiree beneficiary demographics and their perceptions of access and quality of health care for the outpatient services delivered at Ireland Army Community Hospital.

Objectives

The objectives of this research study were as follows:

1. Review literature for marketing research techniques.
2. Determine the retiree population serviced by IACH.
3. Develop a phase I survey instrument, to include the necessary pre-survey, to measure the outpatient services currently being utilized by the retiree population. The utilization rates will include both military and civilian medical facilities.
4. Determine the appropriate sample size necessary to conduct the phase I survey.
5. Conduct the phase I survey.
6. Analyze the data accumulated by the phase I survey.
7. Determine the outpatient services available to the retirees at IACH.
8. Determine the civilian outpatient services being utilized by retirees through responses obtained on the phase I survey.

9. Determine which IACH outpatient departments could sustain additional workload which would be generated by recapturing the retiree segment.

10. Develop a phase II survey instrument to measure the perceptions of access and care delivered to the retiree population at IACH for those outpatient departments identified in #9 above.

11. Conduct the phase II survey and analyze the data.

Criteria

The various criteria applicable to this research were:

1. The survey instrument would be considered adequate when appropriately pretested, as outlined in accepted research methodology texts.

2. Adequate sample size would be determined using a 95% confidence coefficient.

3. Conduct of the survey would comply with criteria outlined in research methodology texts.

Assumptions

No assumptions pertained to this research project.

Limitations

This research was constrained by the following factors:

1. This study involved only the scope of outpatient services at IACH and retirees living in the Fort Knox catchment area. The Fort Knox catchment area includes the states of Ohio, West Virginia, southern Indiana, and central and eastern Kentucky.

2. Time constraints prohibited a longitudinal study which would require a time survey for both phase I and phase II of the survey.

3. Conducting a two-phase survey, where the follow-up survey must be returned to the original respondents, may reduce the response rate.

4. Demonstrating an interest in the retiree health care concerns may contaminate the subjective responses received.

5. The accuracy of the retiree data base may affect the response rate.

Review of the Literature

Prior to undertaking any market research, a health care organization should collect and analyze all relevant information available within the organization. The data on the retiree population growth rate and utilization rate of outpatient services had indicated that this group was a potential target market for IACH. The retirees had been forced to seek alternate means of health care during the period of decreased staffing at the Fort Knox MEDDAC. In order to be able to market effectively to this group, it was determined that the unmet needs of the retirees must be documented and analyzed. In addressing

the issues of the research problem, it was necessary to explore the elements of health care marketing management: why market; what is marketing; and how to market.

Why Market?

In an increasingly competitive health care environment, it is not sufficient for hospital administrators to simply sit back and wait for their organizations' programs to be utilized and their hospitals' beds to be filled. Instead, the proponents of health care marketing contend that it is the responsibility of all administrators to aggressively pursue consumers' attitudes, perceptions, and desires in the realm of health care. Without this knowledge, the administrator's maintenance of existing services or the creation of effective new ones becomes more difficult. A well organized marketing program can offer a fresh approach to the many challenges that hospitals and health care facilities are facing.[6]

Marketing strategies are likely to be an important component of the health care manager's skills for some time to come and may be necessary for survival in the rapidly changing health care delivery arena. The key to the present and future success of any service organization, and hospitals in particular, depends partly on the various marketing opportunities available and its ability to continuously and accurately assess the needs of the various groups of people it

opts to serve. The health care institutions most likely to survive in the future are those capable of recognizing that the needs, interests, and expectations of the people in their trade area are central to their success.[7]

The body of literature on the application of marketing concepts and techniques in the health care delivery system has experienced considerable growth within the last several years. The concept of marketing has expanded rapidly throughout the health care industry and has now emerged as a necessary and desirable component of health services management. Various current trends affecting the proliferation of health care marketing are: (a) growing consumer awareness of health care alternatives; (b) increasing pressures on providers to account for community needs; and (c) decreasing resources for institutional expansion which require more effective accountability and utilization of existing facilities.[8]

People's Attitudes

Perhaps the most difficult aspect of the marketing of services by health care institutions relates to consumer attitudes towards health care. Politically, over the last few decades, the belief that health care is everyone's right became popular. This social norm and attitude is now firmly ingrained in much of society.[9] Today's health care consumers demand that care be of high and consistent quality

yet be provided to them at a low cost. In the area of health, people have come to expect nothing short of perfect health. Even small deviations from perfection are often viewed as catastrophic problems.[10] Several authors have suggested that the publics' attitude toward the health care industry has changed, in that they feel negatively towards the current health care system. The belief exists that the increased malpractice activities against hospitals are directly related to the decline in the hospitals' image.[11]

In fact, the public may expect more than is realistically achievable by the industry. If health care planners can pinpoint areas where consumer expectations are unrealistic, they may be able to influence changes in the expectations without altering actual health care provider performance. On the other hand, knowledge of consumer's perceptions could suggest necessary modifications in services and products offered, and lead to more rewarding encounters between consumers and health care providers. Either of these realizations could provide an avenue for increasing consumer satisfaction, thus enhancing the health care provider's ability to compete.[12]

Consumers are people who have wants and needs and the buying power to satisfy those needs. Today's health services consumers are knowledgeable about disease processes, the strategies needed for coping with them and have the necessary resources to obtain good health care. Managers of health related services who are confronted by these more

sophisticated consumer types must make provisions for consumer-oriented studies. Specifically, marketing research must be conducted to probe consumer's needs, wants, perceptions, and satisfactions relative to the purpose of health services.[13]

Regardless of whether consumer perceptions of a particular hospital are accurate or inaccurate, these perceptions are reality for consumers and influence their health care decisions. If a hospital offers quality care, but consumers in target markets perceive otherwise, the hospital clearly has a marketing problem. Similarly, if a hospital has a high level of technology or charges less for services and consumers perceive otherwise, the hospital is at a disadvantage from a marketing standpoint. Hospitals should understand how their target markets feel about various health care delivery issues.[14]

The community survey is a popular method of marketing research for integrating consumer preferences into the planning and marketing processes and demonstrating public accountability. Such a survey can be used to determine the health needs of the community, consumer expectations and preferences, perceived barriers to obtaining health care, the current market position and areas for future growth and expansion. The community survey may also serve to increase community awareness and the image of the health care provider.[15]

Community Needs

Much of the current public criticism generating pressure on health care providers to demonstrate responsiveness to community needs has been the perceived lack of target market involvement allowed by the health care industry. Like most complex institutions and bureaucracies, health care organizations are often isolated from the publics they serve. This isolation has contributed to a perspective of the medical care system that has historically been introverted. The system has been so busy keeping in step with medical and technological advances that it lost step with the people in the community.[16]

Because the system's perspective was inward, the system developed services to suit the physician and the hospital rather than the community and the patient. The services were organized and provided in terms of what physicians and hospitals decided the community and patients should have, what the physicians and hospitals most wanted to do, and what best suited the aspirations and desires of the system.[17]

Planning formats traditionally depended almost exclusively on health care providers to decide, design and develop new products that were offered. User input concerning potential new programs had not been seriously sought. The presumption was that users as nonexperts had little to say about an area as technical and sophisticated as today's medical care. In fact, it has seemed almost irresponsible to even

consider allowing anyone but the most technically competent persons to decide on or design a new service.[18]

Today the community must learn to coordinate its demands upon the hospital and health care system. "The hospitals' public is a many splintered thing and represents a variety of divergent and competitive interests and goals."[19] As the health care industry exits the seller's market to enter the more competitive buyer's market, hospitals must learn to develop a more conducive atmosphere to hear and absorb the community's demands. While the provision of primary health care in which success, both through clinical remedy and patient satisfaction, is dependent upon reaching the 'heart' of people's basic ills, the personal touch is what most effectively establishes consumer trust and satisfaction.

Decreasing Resources

Growing financial pressures on hospitals, ranging from cutbacks in third-party reimbursement and competition to an acute shortage of capital, signal the potential of rationing of health care in this country. Recent health care provider interest in the techniques of marketing and its application to health care services is no surprise. The federal government's goal of reducing health care costs to its tax-funded programs is emphasized by estimates that the United States has some 130,000 excess hospital beds, costing 2 billion dollars a

year.[20] The government's push to slow or stop construction of additional beds and, in some instances, to close excessive ones has prompted competitive use of those beds to avoid the possible threat of losing them.

America is now facing an era in which medical economic resources will be limited and the country will have to live with more constraints than has ever been the case. Medical costs are rising, both absolutely and as a percentage of the gross national product, at a rate consumers find alarming and unacceptable. The rise is spurred in large part by inflation, the development of new and expensive technologies, increasing wages and fees, and heightened expectations concerning the benefits of medical care. These causes are cumulative in their effects, although their interactions are not fully understood.[21]

Regardless of the causes and factors involved, most Americans believe that this country can and should provide adequate health care for all at an affordable cost. This belief will drive the development of health care delivery and payment methods that will 'ration' both by intention and default. These methods will be neither totally voluntary or involuntary, and will involve virtually all participants in a dynamic system requiring a broadly shared sense of mission. In the future, responsibility for the bioethical judgements that relate patient expectations to available resources must be shared, so that decisions reached in this area reflect consensus among patients,

providers and the government.[22] Marketing provides a mechanism for those in positions of authority to document and gather the information needed to establish that consensus of opinion.

What is Marketing?

As Peter Drucker states, "The aim of marketing is to make selling superfluous. The aim of marketing is to know and understand the consumer so well that the product or service fits him and sells itself."[23] Marketing is not magic. It is a necessary discipline for managing effectively in the new health care environment.[24]

Health care marketing management as defined by Philip Cooper, is the process of understanding the needs and wants of a target market. Its purpose "is to provide a viewpoint from which to integrate the organization, analysis, planning, implementation and control of the health care delivery system."[25] The rational planning of health facilities to meet existing needs requires a knowledge of the demand for health services, the availability of health personnel and facilities, and current patterns of utilization. This is accomplished through a method of systematic research so as to develop programs and services that not only attain the hospital's objectives but facilitate, through effective communication, an exchange relationship with the target population. What must not be overlooked, however, is the need for continuous evaluation and monitoring of progress in order to achieve better results.[26]

A general misunderstanding of health care marketing by many in the health care field is not uncommon. Marketing is not public relations, gimmickry, advertising nor academia. It is none of these descriptions alone, but a varied combination of them all. Marketing is a business function with business objectives, one of which is more efficient operations.[27] Many administrators have been hesitant to embrace marketing as a mangement tool because of these misconceptions. The literature indicates that consumers and medical professionals alike fear that overt marketing activity will compromise the ethical standards of the profession and dilute the humanitarian concerns that remain a vital part of the health care delivery system. While medical care cannot and should not be marketed to consumers in the same way as common household products, there are many ideas and principles that are used in marketing consumer products that can be applied to primary health care programs.[28]

In his text, Health Care Marketing, Philip Cooper warns that the danger inherent in health care marketing stems from the attempt to directly transfer business techniques of marketing to health care without appreciating the differences between the business and health care sectors. The marketing factors utilized in the consumer business market, the 4-Ps, consist of: price, place, promotion, and product. Cooper introduces the concept of CAPS to distinguish the health care marketing point of view:

> Cost or consideration. This goes beyond price to include something of value given up in exchange for health care services. Time and opportunity are only two examples.
>
> Access or availability. This goes beyond place as used by the goods marketer, to encompass the health care consumer's real concern. In general, the health care industry has done a better job in this respect than traditional consumer product firms.
>
> Promotion. This means advertising and personal selling, but also emphasizes public relations and health education, and introduces atmospherics and incentives.
>
> Service development. This simply points out the shift from the 'products' of the goods marketer to the 'services' of the health care marketer.29

Marketing is often mistakenly perceived as being synonymous with advertising and selling. This situation probably exists because these promotional activities are the most visible elements of consumer marketing. A strong argument, however, can be made that advertising is, and always will be, the least important marketing activity for health care organizations.[30] Analyzing patient needs and requirements and satisfying those medical needs is the cost of the marketing exchange activity. Advertising is limited in that it can only serve in an informational and communicative role. Advertising cannot create needs where they do not exist. An advertising campaign is only one component of an effective overall strategy in the marketing function.[31]

Unfortunately, marketing and advertising both seem to experience an image problem and receive negative reactions when they are generalized to marketplace situations where the 'public interest' or

'professionalism' is involved. Advertising is communication, and where new channels for information and persuasion are opened, the possibility exists for deception and misinformation. Critics in the medical profession are justifiably concerned that the misuse of advertising will result in incorrect and possibly even harmful consumer choices. In health care, this could lead to a patient choosing the physician with the best advertising agency instead of the one who possesses the skill to diagnose a condition and treat the patient properly.[32]

However, marketing used appropriately has become a vital and necessary function for management in the health care industry. If it does nothing else, and it can do much more, marketing provides a channel whereby hospital administrators can get to know their internal and external markets; be they publics, physicians, or individual patients.[33] In many ways, marketing programs can only benefit the consumer. An individual campaign is very likely to be the result of market research that analyzes the patient population and its needs. Based on that data, the institution realigns its services to meet the needs of the community. Only then can it really take its message to the public: This is who we are and what we offer. A more informed consumer is going to be a better health care buyer, and that is certainly what the entire health care system needs.[34]

How to Market

Most authors agree that in order to market effectively, the hospital must identify the influential forces or publics of the hospital. This

must always begin with documented needs on the part of the patient or consumer rather than an assumption of need on the part of the provider. Because of the range of services a hospital offers, it is inefficient to deal with people as if they were an undifferentiated mass. An effective hospital marketing program begins by subdividing, or segmenting the total trade area into groups of health care consumers, called target markets, who are similar with respect to certain demographic variables, health needs, interests, or utilization factors.[36]

In order to make the right marketing decisions for a given target market, it is imperative that the hospital marketer develop an effective research program that will provide reliable information. The purpose of research is to delineate the actual and potential consumers, their needs and wants, in a given market segment. A second, and equally important role for research is to continually assess the pay-off of the hospital's marketing activities.[37]

Prior to undertaking any market research, the health care organization should collect and analyze all relevant marketing information already available within the organization. Marketing information can be divided into internal data - about the hospital itself and external data - about the hospital's competition, market and general environment. Both types of data are important since a well designed marketing program requires the successful integration of internal capabilities and limitations with external opportunities and constraints.[38] Clarke and Shyavitz contend that if an organization

can answer its marketing related questions through analysis of the internally available data, the organization should avoid the unnecessary expense of original, objective, systematic, and usually professionally performed market research.[39]

Market research, while of great value, does have its limitations. Recognition of these limitations is essential to having realistic expectations. First, one cannot learn all the answers to all the important marketing questions through research. There are inaccessible markets, sensitive subjects, and issues so complex that they are too expensive for any hospital to pursue. Second, to be optimally useful in decision making, experimental research findings need to be statistically significant and like all research, market research findings can be equivocal. A research project could yield no definite answer, no real conclusion. Third, market research findings are time limited if they incorporate consumer attitudes and perceptions. People's feelings are dynamic, they constantly undergo change. The more market research is based on this type of subjective input, the shorter will be the utility of the research findings. This does not suggest that market research should not be attempted because of its time-limited utility. Rather, market research should be performed each and every time a major research question arises.[40]

Effective health care planning requires information as to how and why consumer health care choices are made. To be responsive to consumer

desires, health care managers need techniques to identify the perceived benefits that guide choices made by health consumers - techniques that can articulate directly with the planning process of the organization and are relatively simple to implement. There are a number of approaches to studying the consumer's decision process. Basic to all of these is the survey.[41] A survey is a formalized method of collecting information through direct contact with the units of interest, such as individuals, groups and organizations. Surveys are formalized in that they follow a logical pattern of design, data collection, and analysis. Information is collected by means of standardized questions so that every element surveyed responds to the same set of questions.[42]

Generally, in descriptive surveys, the aim is to study a population which is large and heterogenous. Surveys offer an opportunity to determine, through the application of sampling techniques, the state of affairs for a very large number of people. It is relatively easy with other methods or through casual observations to determine the state of affairs for a small number or for a homogenous group, but the need of government administrators or huge consumer businesses is to have reliable knowledge on great masses of people. This fact alone has encouraged the growth of survey research, for the sample survey is uniquely geared to these requirements.[43]

Research Methodology

The methodology utilized to conduct this research included the following:

1. A study of the marketing strategies for outpatient services being utilized in the health care industry was carried out by reviewing the literature.

2. A list of retirees living in the Fort Knox catchment area was obtained through the Post Retiree Services Office.

3. A survey tool was designed to assess the demographics and current utilization rates of outpatient services, both military and civilian, used by the identified retiree beneficiaries.

4. Phase I survey was administered through a mail-out questionnaire in December 1985.

5. The following formula was utilized to determine the appropriate sample size:

$$\frac{NZ^2\ P(1-P)}{d^2\ (N-1) + Z^2\ P\ (1-P)} = n\ (n= 378)$$

where N = 24,000
Z = 1.96
P = 0.5
d = 0.05

6. Approximately 3000 surveys were mailed out for the phase I survey to account for the varying response rate anticipated.

7. Phase I survey results were collected. The areas of highest civilian use for outpatient services were determined.

8. Upon determination of which outpatient services IACH desired to market, i.e., increase patient workload in, (see #9 below), phase II surveys were distributed to those previously surveyed retirees who indicated they used those services in the civilian sector.

9. The Deputy Commander for Clinical Services, Deputy Commander for Administration, Chief of Clinical Support Division, and the Chief Nurse were interviewed reference the outpatient services which could best sustain an increased workload from the retiree population.

10. A phase II survey was developed to assess the retiree's perceived concerns of access and quality of health care delivered at IACH, for the outpatient services identified in #9 above.

11. A phase II survey was administered in May 1986, resurveying those individuals utilizing the identified outpatient services in the civilian community.

12. Data from the second survey was collated by accumulating percentages for the various areas surveyed and presenting them to the administration in a usable format.

FOOTNOTES

[1]Quinn H. Becker, LTG, "Rx For the Future - Message from the Surgeon General," Officer's Call, May-June 1986, p. 4.

[2]Annual Historical Report - AMEDD Activities (RCS MED-41 R4)), 19 March 1979, p. 1.

[3]HSC Demonstration MTF, HSOP Information Paper, 24 July 1985, p. 1.

[4]Paul Smith, "Military Families Give Health Care Low Rating," Army Times, May 27, 1985, p. 31.

[5]Ibid., p. 43.

[6]Richard C. Ireland, "Marketing A New Opportunity for Hospital Management," in Philip D. Cooper (Ed). Health Care Marketing, Germantown, MD: Aspen Systems Corporation, 1979, p. 39.

[7]Ibid., p. 38.

[8]Robert L. Ludke, James P. Curry, and Robert M. Saywell, "The Community Survey and the Health Services Provider," Journal of Health Care Marketing, 3(4), Fall 1983, p. 39.

[9]Philip D. Cooper, "Entry Strategies for Marketing in Ambulatory and Other Health Delivery Systems," Journal of Ambulatory Care Management, 2(2), May 1979, p. 52.

[10]Debra Scammon and Lon Kennard, "Improving Health Care Strategy Planning Through Assessment of Perceptions of Consumers, Providers, and Administrators," Journal of Helth Care Marketing," 3(4), Fall 1983, p. 11.

[11]John K. Simon, "Marketing the Community Hospital: A Tool for the Beleaguered Administrator," Health Care management Review, Spring 1978, p. 13.

[12]Scammon, "Improving Health Care Strategy," p. 10.

[13]Doris Froebe, "Variables Influencing the Consumer's Choice of Nursing Homes," Journal of Health Care Marketing, 2(2), Spring 1982, p. 25.

[14]Joe M. Inguanzo and Mark Harju, "Affluent Consumer Most Discriminating," Hospitals, 59(19), October 1, 1985, p. 84.

[15]Ludke, "The Community Survey and the Health Services Provider," p. 39.

[16]Scammon, "Improving Health Care Strategy," p. 16.

[17]Ray Brown, "Consumerism in Health Care Delivery: The Harbinger of Opportunity," in Philip D. Cooper (Ed.), Health Care Marketing, Germantown, MD: Aspen Systems Corporation, 1979, p. 9.

[18]Terrence J. Rynne, "The Third State of Hospital Long-Range Planning: The Marketing Approach," Helth Care Management Review, 5(3), Summer 1980, p. 7.

[19]Brown, "Consumerism in Health Care Delivery," p. 10.

[20]Jon G. Keith, "Marketing Health Care: What the Recent Literature is Telling Us," Hospitals & Health Services Administration, 26(6), Special II 1981, p. 66.

[21]James F. Gifford and William G. Anlyan, "The Role of the Private Sector in an Economy of Limited Health Care Resources," The New England Journal of Medicine, 300(14), April 5, 1979, p.791.

[22]Ibid., p. 793.

[23]Peter F. Drucker, Management: Tasks, Responsibilities, Practices, New York: Harper & Row, 1973, p. 64.

[24]Nathan Kaufman, "HealthCare Marketing" Back to Basics," Healthcare Executive, 1(1), November-December 1985, p. 22.

[25]Philip D. Cooper, Health Care Marketing, Germantown: MD: Aspen Systems Corporation, 1979, p. 3.

[26]Keith, "Marketing Health Care,", p. 69.

[27]Ibid., p. 66.

[28]Tim M. Henderson, "No Frills Marketing of Community-Based Primary Care," Journal of Health Care Marketing, 5(1), Winter 1985, p. 47.

[29]Cooper, Health Care Marketing, p. 227.

[30]Richard A. Wright and Bruce H. Allen, "Marketing and Medicine," The Journal of the American Medical Association, 250 (1), July 1, 1983, p. 48.

[31]Peter M. Sanchez, "Health Care Marketing at the Crossroads," Journal of Health Care Marketing, 4(2), Spring 1984, p. 40.

[32]Wright, "Marketing and Medicine," p. 47.

[33]Douglas C. Anderson and Raian Near, "Something May Not Be Working in the Hospital - But is it Marketing?" Journal of Health Care Marketing, 3(1), Winter 1983, p. 54.

[34]William E. Johnson, "A New Age for Healthcare Marketing." Healthcare Executive,1(1), November-December 1985, p. 12.

[35]Keith, "Marketing Health Care," p. 82.

[36]Ireland, "Marketing: A New Opportunity for Hospital Management," p. 40.

[37]Ibid., p. 41.

[38]Roberta N. Clarkes and Linda Shyavitz, "Marketing Information and Market Research: Valuable Tools for Managers," Health Care Management Review, 6(1), Winter 1981, p. 73.

[39]Roberta N. Clarkes and Linda Shyavitz, "Market Research: When, Why, and How," Health Care Management Review, 7(4), Winter 1982, p. 39.

[40]Ibid., p. 31.

[41]William A. Flexner, Curtis P. McLaughlin, and James E. Littlefield, "Discovering What the Health Consumer Really Wants," in Philip D. Cooper (Ed), Health Care Marketing, Germantown, MD: Aspen Systems Corporation, 1979, p. 179.

[42]Ludke, "The Community Survey and the Health Services Provider," p. 40.

[43]Herbert H. Hyman, Secondary Analysis of Sample Surveys: (Princples, Procedures and and Potentialities), New York, John Wiley and Sons, Inc., 1972, p. 70.

CHAPTER I I

Discussion - Conduct of the Phase I Survey

The initial question which needed to be addressed in the conduct of this research was whether or not IACH was meeting the needs of the retiree population. The first consideration was the ability to obtain information and establish the retiree data base. If the target market could not be identified, it would be difficult to accomplish any market research. The Fort Knox Retiree Services office was contacted and all retirees and survivors of retirees registered within the catchment area could be accessed through the computerized data base. A listing of all retiree households was obtained, which consisted of some 24,000 beneficiaries serviced by the Fort Knox MEDDAC.

The phase I questionnaire (APPENDIX F) was designed to survey the retiree's utilization rates of both civilian and military outpatient services. Internal hospital data could specify which IACH clinics were used by the retirees and what percentage the retirees constituted of total outpatient visits. However, the internal data could not establish the ability of the target market to access the IACH system nor indicate whether the health care needs of the retirees were satisfied. By conducting the phase I survey and tabulating the results, the retirees' utilization rates of civilian medical facilities could be determined. These rates would offer insight as to how often the retired beneficiaries were using alternate outpatient services.

The phase I survey also included demographic questions pertaining to household size, retiree age group, driving distance from IACH, length of time retired, and length of time living in the area. A demographic profile is provided in APPENDIX G. The bottom of the questionnaire provided space for the respondents to write-in comments pertaining to health care at Ireland Army Community Hospital.

The phase I survey was prepared and distributed in early Janauary 1986, shortly after the Christmas holiday schedule. Although initially a random numbers chart was intended to be used for distribution of the survey, this format was altered. After a discussion with the president of the Post Retiree Council, it was determined that more useful information regarding hospital access and quality of care could be obtained from surveying the retirees living closest to Fort Knox. These individuals would most logically attempt to utilize the outpatient services on post and their selection of medical care would be less affected by the inconvenience factor of distance. While the decision to subdivide the retiree data base introduced bias into the survey process, this was weighed against the anticipated benefit of obtaining useful input for the hospital.

Based on the target sample size of 400, and the unpredictable response rate, 3000 surveys were addressed and mailed to the retiree households residing within a thirty mile radius of Fort Knox, excluding the Louisville metropolitan area. Within the identified zip code area

(APPENDIX H) a listing of approximately 9,000 retiree households was obtained. Every third name on the list was selected to achieve the desired 3000 mail-out figure. Approximately one month was allocated for the collection of responses from the initial survey.

Results of the Phase I Survey

For the calculation of population demographics and utilization rates, a total of 1313 completed and usable questionnaires were returned. This figure reflected a 44% response rate.

The demographic profile of the respondents listed in APPENDIX G provides the characteristics of the sample. The average retiree respondent was predominantly male, almost 57 years old, had been retired over eight years, lived twenty minutes away from post, lived in the local area for four years, and had approximately 1.3 eligible beneficiaries residing in the household.

Of particular interest in the sample characteristic was the number of eligible beneficiaries in the retiree household. There had been some question concerning the family multiplier index used to calculate eligible retiree and retiree dependent populations. Several years ago, an index of 2.5 was established for use in calculating the total population. When that index was subsequently decreased to 1.5 many local authorities believed the figure was set too low, and should be raised. This particular sample of retirees had an average figure of

1.3 eligible beneficiaries, which certainly approximated the officially established index.

Inspecting the average length of time retired against the average time living in the Fort Knox area, the figures indicated that retirees had moved at least once during the course of their retirement. No evidence was available to explain what had possibly motivated the retiree segment to move to a new location. The average travel time of twenty minutes corresponded to normal transit times for the local area. This also reflected the specific subdivision of retiree households chosen for survey in this phase of the research.

The respondents were asked to indicate for themselves, their spouses and other beneficiaries which clinics their household had used at both IACH and civilian health facilities within the past year. Of the 28 clinics available for selection, both the civilian and military utilization rates are provided at APPENDIX I.

The most frequently used clinics, (see table 1), for both the military and civilian sector, were almost identical and reflected expected utilization rates for this type of population.

TABLE 1

MOST FREQUENTLY USED OUTPATIENT CLINICS

CLINIC	% of IACH use	% of Civilian use
General Medicine	12.4	15.7
Laboratory	10.4	9.4

Radiology	10.4	9.9
Optometry	9.1	9.3
Emergency Room	8.0	7.2
Internal Medicine	7.3	7.7

Of these highest civilian use clinics, General Medicine, Optometry, Internal Medicine and Emergency Room users provided a market segment which could be investigated for potential increase of outpatient workload at the Fort Knox MEDDAC. Radiology and Lab users were omitted since these clinics are not directly accessed by the patient without physicians intervention.

The group utilizing both civilian and military medical care was subdivided by their potential for resurvey based on usage of civilian care in the identified high use market. A total of 418 households were selected for resurvey in the second phase of this research. This group of 418 families consisted of civilian-only use and IACH and civilian users that had indicated their household had sought medical care through General Medicine, Optometry, Internal Medicine, or Emergency Room in the civilian sector. Four categories of respondents (table 2) were established for further comparison of the data obtained from the phase I survey.

TABLE 2

CATEGORIES OF RESPONDENTS FOR PHASE I SURVEY

CATEGORY	PERCENTAGE OF TOTAL (N=1313)	
IACH only use	54.4%	(n = 714)
*Civilian only use	5.9%	(n = 78)
*IACH & Civilian use	25.9%	(n = 340)
IACH & Civilian use	13.8%	(n = 181)

Considering the total aggregate utilization figures obtained in the phase I survey, it was necessary to reevaluate the initial premise that the retiree population was not having their medical care needs met at IACH. Of a total of 12,398 clinic occurrences, the military system provided eighty-one percent of the usage rate, while the civilian health facilities provided nineteen percent of the usage rate.

The group using civilian-only facilities consisted of only 5.9% of the surveyed population. These figures did not support the perception that retired military personnel could not access outpatient services at IACH. If the retirees believed they were unwelcome at the hospital, this was not reflected by the utilization figures for military health care.

The raw data for all four categories of respondents was analyzed for the number of clinics used per household (APPENDIX J), to compare against the means, $[\bar{X}]$, obtained for the aggregate data. The combined respondents using military care had an aggregate mean of 8.12 clinics used per household (standard deviation, $s = 6.16$). The combined respondents using civilian care had an aggregate mean of 3.95 clinics used per household (standard deviation, $s = 3.59$). This data indicated that the surveyed retirees used twice as many clinics per household in the military system as in the civilian market.

The standard deviations obtained for aggregate IACH and aggregate civilian respondents showed a wide range of number of clinics used per household. The range for aggregate IACH use included: 1.96 to

14.28 clinics used per household, at one standard deviation below through one standard deviation above the mean of 8.12. The range for aggregate civilian use included: 0.36 to 7.54 clinics used per household, at one standard deviation below through one standard deviation above the mean of 3.95. This indicated a wide dispersion of usage of the outpatient services available in either system.

The calculation of the significance between aggregate means of IACH and civilian use yielded a Z-score of 18.65, (at the 99% confidence interval). At this interval, the Z-score of 18.65 (alpha range -2.58, 2.58) is highly significant. This indicated an extremely significant difference between the number of clinics used per household for IACH and civilian outpatient users. This significance suggested that although the retirees conveyed dissatisfaction with access to care at IACH, they were willing to wait and have the majority of their care delivered through the military system.

A comparison of the four various categories showed significant variance for the civilian-only users and IACH & civilian (not resurveyed) users. The civilian-only users' mean ($\bar{X}$ = 6.18) compared significantly to the aggregate civilian means of 3.95 clinics used per household. This indicated that the retirees electing to use only civilian facilities utilized an average of 6 different clinics, which was almost twice the group norm. The IACH & civilian (not resurveyed) users' mean ($\bar{X}$ = 2.09) compared significantly to the aggregate civilian mean of 3.95

clinics used per household. This group of retirees used an average of only 2 different clinics, which was almost half the group norm.

Additional analysis of the available utilization data did not substantiate any other trends or areas for further investigation from the phase I survey. With the exception of a very small percentage of civilian-only usage (5.9%), this sample group appeared to have sufficient access to the military health care system.

A mechanism for further classification and examination of the available data was necessary. Over half the respondents made use of the additional comments space at the bottom of the questionnaire. Of the 677 surveys submitting comments, 52.7% wrote positive or complimentary remarks about the health care provided to them at Fort Knox. The remaining 47.3% wrote comments classified as negative, voicing dissatisfaction of some sort with the military medical system at IACH. A breakout of the categories of retirees providing comments is listed in table 3.

TABLE 3

SUMMARY OF ADDITIONAL COMMENTS - PHASE I SURVEY

Category	No Comment	Positive Comment	Negative Comment
IACH only	344	229	141
*Civilian only	41	13	24
*IACH & civilian	167	60	113
IACH & civilian	84	55	42

* - indicates resurveyed in phase II survey

Analyzing the negative comments provided by the respondents in the phase I survey was felt to be worthwhile at this juncture, since respondents had spent their time to express opinions about health care obtained at the Fort Knox MEDDAC. An overwhelming percentage, 49.8%, of the complaints (APPENDIX K) were generated due to the inability of the system to provide appointments to the retirees on a responsive basis.

Other significant complaints (APPENDIX L) among categories of respondents included: a. overall poor quality of care received; b. treatment as second-class citizen; c. too long of a wait in the clinic; d. rude staff; and e. lack of specialties available within the facility. These various complaints were incorporated into the construct of the phase II survey. The negative comments provided an excellent basis on which to develop the questions selected for measuring the perceptions of access and quality of health care delivered at IACH.

Conduct of the Phase II Study

A group of initial respondents had been selected for resurvey in phase II of the research. This potential target market consisted of the retiree households utilizing civilian medical facilities exclusively, and in the phase I survey had comprised 5.9% of the respondents. Also included in the target market was the previously identified group which sought their care through General Medicine, Optometry, Internal Medicine and Emergency Rooms in the civilian sector. The users of these clinics comprised the largest portion of the civilian utilization rates and would be the market that must be recaptured to increase the workload figures at IACH.

Of key note at this point in the conduct of the research is that the conditions which prompted the study had drastically changed. The status of the HSC Demonstration Project was temporarily terminated pending funding from higher headquarters. This meant that the MEDDAC would not be receiving any additional increase in staffing. Concurrently, due to Gramm-Rudman cuts, staffing shortages of medical personnel were once again being experienced at the facility. The need no longer existed to attempt to recapture the retiree population utilizing civilian health care facilities.

Since the research project needed to be completed to fulfill the researcher's graduation requirements, the determination was made to

continue phase II of the survey to assess the retirees perceived concerns of access and quality of health care delivered at IACH. The data obtained through the second phase of the research could still benefit the hospital by measuring the consumers' perceptions of health care. This data could also be utilized to continue to improve the image of the facility from the community's perspective.

A phase II questionnaire was developed (APPENDIX M) and distributed in May 1986, to 418 households. Once again, a four week time frame was allotted for the collection of responses from the follow-up survey. A total of 239 completed and usable questionnaires were returned during this time frame, indicating a 56.9% response rate for the resurveyed group of retirees.

Results of the Phase II Survey

The target market utilizing civilian-only facilities had a response rate of 37%, while the IACH & civilian use category had a higher response rate of 61%. The lower response rate of 37%, (29 of 78 total civilian-only use), could possibly be attributed to the fact that the survey questions were designed to assess the perceptions of care at IACH. This particular group of retirees, using only civilian facilities within the last year, certainly may have had perceptions of care received at IACH at some point in their medical care experiences, but very possibly they chose not to answer the second survey due to lack of interest or lack of recent exposure to the facility.

As in the phase I survey, numerous additional comments were provided by the respondents. A total of 133 personnel wrote remarks in the space provided on the questionnaire. Of these, 111 (83.5) were classified as negative comments, and 22 (16.5%) provided positive remarks. See APPENDIX N for delineation of negative comments from the phase II survey. Once again, the overwhelming majority of negative comments were targeted towards the unavailability of appointments. This single item caused more frustration for the retiree population than any other aspect of care received at IACH.

In reviewing the data received in the phase II survey, (APPENDIX O) some very interesting results were obtained. The individuals surveyed were on the whole, very satisfied with all aspects of care actually received. Almost 87% of the resurveyed retirees indicated that they would use the hospital's clinics again. In the area of communication, respondents indicated that receptionists, nursing staff, and other support personnel treated them courteously and were helpful the majority of the time. The population surveyed was also satisfied with the doctor's instructions.

When queried reference their perception of civilian healthcare versus military health care, only 27.5% felt that civilian health care was better than the military care received. Over fifty percent felt that the civilian care they had received was not better than the military care, and thirteen percent were unsure. These figures were somewhat inconclusive for any definitive judgements at this point of the research.

The major areas of dissatisfaction were the number of calls needed to obtain an appointment and length of time needed to wait for that appointment. Not surprisingly, the issue of not enough health care providers, and subsequently not enough appointments available within the system, aggravated the eligible beneficiaries who have come to expect full medical services after their years of service to the country. APPENDIX P provides a summary ranking of the health care areas surveyed in phase II of the research. There seems to be some room for improvement in the area of doctor and patient communications, for patients that did not have their questions adequately answered by the doctor.

A comparison of responses is provided in APPENDIX Q of the entire group surveyed versus the civilian-only respondents. Although this group consisted of some very small figures, (n = 29), their satisfaction with the entire system was still decidedly lower than the aggregate figures. Obviously these individuals had attempted to have their health care needs provided for them by the military system and had been dissatisfied for a variety of reasons. Due to the dissatisfaction and bad experiences with the military system they chose to utilize the civilian health care sector exclusively.

CHAPTER III

CONCLUSION AND RECOMMENDATION

Baseline data on the retiree beneficiary population's demographics and their perceptions of access and health care delivered at Ireland Army Community Hospital through outpatient services were established. These various areas of retiree baseline data are presented in the above discussion and enclosed appendices. The basic premise that the chain of command had perceived - that the retiree beneficiaries are not being welcomed at IACH - was not substantiated in the course of this research.

The utilization rates of the sample population in the phase I survey indicated that 80% of the respondents received their medical care at the Fort Knox MEDDAC. At the current time, with the status of the HSC Demonstration Project temporarily terminated and recurring health prvoider shortages, it would be impractical and extremely difficult to attempt to recapture any lost market segment.

Although utilization rates and current staffing patterns do not warrant an increased workload of the retiree population, this does not mean that a need, as perceived by the surveyed individuals, does not exist. As exhibited by the additional comments provided in the phase I survey and the subsequent resurvey in phase II, the majority of the complaints stemmed from the inability of the military system

to provide appointments to retirees on a responsive basis. Retirees were very dissatisfied with the length of time required to obtain an appointment and the length of time before they could see a health care provider for their medical problem. This dissatisfaction is due in large part to the staffing allocated to the Fort Knox MEDDAC. Possibly no realistic solution, within the scope of the graduate research project, is available for this particular dilemna.

APPENDIX A

FT. KNOX MEDDAC PHYSICIAN STRENGTHS

FT. KNOX MEDDAC PHYSICIAN STRENGTHS

YEAR	REQUIRED	AUTHORIZED	ASSIGNED
1975	92	71	70
1976	91	72	66
1977	81	48	70
1978	79	45	62
1979	75	45	60
1980	74	39	55
1981	74	59	58
1982	64	54	56
1983	64	53	52
1984	64	53	50
1985	65	52	57
1986 (June)	65	52	50

APPENDIX B

FT. KNOX CATCHMENT AREA RETIREE CENSUS

FT. KNOX CATCHMENT AREA RETIREE CENSUS

YEAR	TOTAL
1976	17,304
1977	18,324
1978	18,700
1979	19,236
1980	18,557
1981	19,812
1982	20,481
1983	22,991
1984	23,208
1985	24,739

FT. KNOX CATCHMENT AREA INCLUDES THE FOLLOWING STATES:

Central Kentucky, Ohio, West Virginia, Southern Indiana. All data obtained through Ft. Knox Retiree Services.

APPENDIX C

IRELAND ARMY COMMUNITY HOSPITAL OUTPATIENT VISITS

IACH OUTPATIENT VISITS

YEAR	TOTAL	NUMBER RETIREES	PERCENT RETIREES
1976	625,458	72,155	11.5
1977	437,241	55,526	12.7
1978	404,147	42,383	10.5
1979	424,067	42,288	9.9
1980	453,094	52,899	11.7
1981	399,960	59,125	14.8
1982	403,484	64,232	15.9
1983	406,930	68,802	16.9
1984	381,957	69,618	18.2
1985	398,767	71,934	18.0

Source: PASBA, Ft. Sam Houston, Texas

APPENDIX D

HSC INFORMATION PAPER -- DEMONSTRATION PROJECT

HSOP
24 July 1985

INFORMATION PAPER

SUBJECT: HSC Demonstration MTF

1. Issue. This paper provides current information on the status of the HSC Demonstration MTF.

2. Facts.

a. The HSC Demonstration MTF project proposes the staffing of two HSC medical treatment facilities (U.S. Army MEDDAC's Fort Campbell and Fort Knox) at the fully required level and measure the effects on workload, patient and provider satisfaction, and quality of care.

b. Manpower costs are summarized at Encl 1. Military manpower requirements for the project, by grade and skill, are at Encl 2. Incremental OMA and OPA costs are at Encl 3.

c. The Demonstration MTF project will be conducted over a two year period. The first year (FY 86) will consist of the collection of baseline data. The MTFs will be fully staffed in FY 87 and the baseline data elements will be remeasured. Other variables affecting MTF performance will be controlled or accounted for.

d. The ultimate goal of the project is to demonstrate for the Army leadership, the effects of full staffing on MTF performance and patient satisfaction. By comparing these results with the marginal costs incurred, decision-makers can make informed decisions regarding optimal levels of staffing. An additional benefit is the validation of in-house costs for use in comparing with contracting alternatives.

e. The Demonstration MTF project will be evaluated in four major areas:

(1) Workload Recapture: Recaptured workload will be measured in terms of measured workload within the facility and decreased CHAMPUS costs (in the catchment area), supplemental care costs, and Direct Health Care Provider Program (DHCPP) costs. The MED-302 Report, Individual Patient Data System (IPDS) and the Ambulatory

HSOP
SUBJECT: HSC Demonstration MTF

Care Data Base will provide data for this evaluation. The Uniform Chart of Accounts and Uniform Staffing Methodologies System will provide data on the costs associated with increased workload.

(2) Patient Satisfaction: Changes in patient satisfaction will be measured by surveys of the catchment area beneficiaries, (using the 1984 DOD survey as a baseline) the annual HSC patient satisfaction survey, complaints received by Patient Representative Offices, Inspector General Action Requests, and waiting times for appointments and in clinics.

(3) Provider Satisfaction: Changes in provider satisfaction will be evaluated by personnel surveys (again using the 1984 DOD survey as a baseline) and by retention rates.

(4) Quality of Care: Quality of care will be evaluated using the Automated Quality of Care Evaluation Support System (AQCESS), the number of malpractice claims filed against the facility, and Inspector General Action Requests.

3 Encl
nc

CPT G. T. Kennedy/AUTOVON 471-2204/6620

HSC DEMONSTRATION MTF
MANPOWER

	CAMPBELL	KNOX	TOTAL
MC	13	13	26
MSC	8	9	17
ANC	25	17	42
AMSC	2	0	2
OTHER (CH)	0	1	1
TOTAL OFFICER	48	40	88
WO	0	3	3
ENLISTED	25	84	109
CIVILIAN	73	154	227
TOTAL	146	281	427

HSC DEMONSTRATION MTF
MILITARY MANPOWER

ENLISTED

MOS	CAMPBELL	KNOX	TOTAL
E3			
35G10	0	2	2
42E10	0	2	2
91A10	1	10	11
91D10	0	1	1
91G10	0	2	2
91J10	0	1	1
91L10	0	1	1
91Q10	0	0	2
92B10	0	4	4
92B10/M4	0	1	1
E3 TOTAL	2	25	27
E4			
35G10	1	0	1
42C10	1	0	1
42E10	0	2	2
71G10	1	1	2
71M10	0	1	1
75B10	1	0	1
76J10	1	0	1
76Y10	1	0	1
91A10	1	8	9
41D10	1	0	1
91G10	1	2	3
91H10	0	1	1
91P10	0	2	2
91Q10	0	1	1
91Q10/Y7	1	0	1
91V10	0	1	1
91W10	0	1	1
92B10/M4	0	1	1
E4 TOTAL	10	21	31

ENLISTED

MOS	CAMPBELL	KNOX	TOTAL
E5			
35G20	1	0	1
71G20	2	0	2
71L20	1	2	3
91A20	0	1	1
91B20	0	4	4
91C20	0	7	7
92D20	1	2	3
91H20	0	1	1
91Q20	0	1	1
91Q20/Y7	1	0	1
91S20	0	2	2
91U20	1	0	1
91W20	0	1	1
92B20	0	1	1
E5 TOTAL	7	22	29
E6			
35U30	0	1	1
71G30	1	0	1
76J30	0	2	2
91B30	0	2	2
91C30	0	4	4
91D30	1	1	2
91G30	0	2	2
91P30	0	1	1
91S30	0	1	1
92B30	1	0	1
94F30	1	1	2
E6 TOTAL	4	15	19
E7			
91Q40	1	0	1
91V40	0	1	1
95B40/H3	1	0	1
E7 TOTAL	2	1	3

OFFICERS

SSI	BRANCH	CAMPBELL	KNOX	TOTAL
02				
66C	ANC	1	1	2
66D	ANC	0	1	1
66E	ANC	1	0	1
66G	ANC	0	1	1
66H	ANC	5	0	5
66J	ANC	5	2	7
02 TOTAL		12	5	17
03				
54A	CH	0	1	1
60E	MC	0	2	2
60J	MC	3	0	3
60P	MC	1	0	1
60V	MC	0	1	1
60W	MC	0	1	1
61F	MC	1	0	1
61H	MC	3*	0	3
61M	MC	1	0	1
61R	MC	1	1	2
62A	MC	1	1	2
65A	SP	1	0	1
65C	SP	1	0	1
66C	ANC	0	1	1
66D	ANC	0	3	3
66D/8E	ANC	2	0	2
66E	ANC	3	0	3
66F	ANC	1	0	1
66F/7W	ANC	0	1	1
66G	ANC	0	1	1
66G/8D	ANC	0	1	1
66G/8E	ANC	2	0	2
66H	ANC	3	0	3
67A	MSC	2	2	4
68H	MSC	2	1	3
68K	MSC	3	3	6
68L	MSC	0	1	1
68R	MSC	0	1	1
68S	MSC	1	1	2
03 TOTAL		32	25	57

OFFICERS

SSI	BRANCH	CAMPBELL	KNOX	TOTAL
04				
60G	MC	1	0	1
60H	MC	0	1	1
61B	MC	1	0	1
61F	MC	0	3	3
61J	MC	0	1	1
61M	MC	0	1	1
61R	MC	0	1	1
66A	ANC	0	1	1
66E	ANC	0	1	1
66G	ANC	1	1	2
66H	ANC	1	0	1
04 TOTAL		4	10	14

As of 17 Jul 85

FT CAMPBELL

	OPA	OMA
Equipment		
MEDCASE	+713.7	
CEEP		+ 72.6
Supplies (+210 MMCU x 14.89 x 365)		+1,141.3
Contracts		
Registration Fees		+ 10.4
Custodial Contract		+ 281.8
Medical Gases		+ 8.7
Supplemental Care		- 218.7
Medical Maintenance		
Annual		+ 25.0
One Time		+ 13.5
	+713.7	+1,334.6
Civilian Pay (73 x 21.338)		+1,557.7

As of 17 Jul 85

FT KNOX

	OPA	OMA
Equipment:		
MEDCASE	+336.8	
CEEP		+ 417.2
Supplies		+ 600.0
Contracts		
DHCPP (800.0-375.0)		- 425.0
Med Maint		+ 40.0
Supplemental Care		- 120.0
Travel		+ 19.0
	+336.8	+ 531.2
Civilian Pay (OMA)		+3,355.5
	+336.8	+3,886.7

APPENDIX E

FT. KNOX MEDDAC CATCHMENT AREA CHAMPUS COSTS

FT. KNOX CHAMPUS COSTS

FISCAL YEAR	TOTAL GOVT OUTPATIENT COSTS	TOTAL CLAIMS PROCESSED	NO. RETIREE CLAIMS
1982	$664,580	4233	616
1983	$752,734	3945	526
1984	$709,630	3999	594
1985	$946,047	4356	606

APPENDIX F

PHASE ONE QUESTIONNAIRE

PATIENT DATA

a. Your name: _____

b. Are you: male ☐ female ☐

c. Your age bracket:

27-36 yrs ☐	57-66 yrs ☐
37-46 yrs ☐	67-76 yrs ☐
47-56 yrs ☐	over 76 yrs ☐

d. How long have you been retired from the service?

0-1 yrs ☐	5-7 yrs ☐
1-3 yrs ☐	7-9 yrs ☐
3-5 yrs ☐	more than 9 yrs ☐

e. How far away from Fort Knox do you live?

0-5 minutes ☐	25-35 minutes ☐
5-15 minutes ☐	35-45 minutes ☐
15-25 minutes ☐	more than 45 minutes ☐

f. How many eligible beneficiaries (other than yourself) for military health care currently reside in your household?

0 ☐	3 ☐
1 ☐	more than 3 ☐
2 ☐	

g. How long have you lived in the Fort Knox area as a retiree?

0-6 months ☐	2-3 yrs ☐
6-12 months ☐	3-4 yrs ☐
1-2 yrs ☐	more than 4 yrs ☐

---

1. What outpatient medical services have you and your beneficiaries used at Ireland Army Community Hospital within the last year?

(Please check as many as apply.)

	yourself	spouse	other beneficiaries
ALLERGY CLINIC	☐	☐	☐
AUDIOLOGY CLINIC	☐	☐	☐
CARDIOLOGY CLINIC	☐	☐	☐
CLINICAL DIETETICS	☐	☐	☐
COMMUNITY HEALTH NURSING	☐	☐	☐
DERMATOLOGY CLINIC	☐	☐	☐
EAR, NOSE & THROAT CLINIC	☐	☐	☐
EEG & EVOKED POTENTIAL STUDIES CLINIC	☐	☐	☐
EMERGENCY ROOM	☐	☐	☐
GENERAL MEDICINE CLINIC	☐	☐	☐
HEALTH MAINTENANCE CLINIC	☐	☐	☐
INTERNAL MEDICINE CLINIC	☐	☐	☐
LABORATORY (PATHOLOGY)	☐	☐	☐
NUCLEAR MEDICINE	☐	☐	☐
OBSTETRICS/GYNEGOLOGY CLINIC	☐	☐	☐
OPHTHALMOLOGY CLINIC	☐	☐	☐
OCCUPATIONAL THERAPY CLINIC	☐	☐	☐
OPTOMETRY CLINIC	☐	☐	☐
ORTHOPEDIC CLINIC	☐	☐	☐
PEDIATRIC CLINIC	☐	☐	☐
PHYSICAL THERAPY CLINIC	☐	☐	☐
PODIATRY CLINIC	☐	☐	☐
PSYCHIATRY CLINIC	☐	☐	☐
RADIOLOGY (X-RAY)	☐	☐	☐
SOCIAL WORK SERVICE	☐	☐	☐
SURGICAL CLINIC	☐	☐	☐
UROLOGY CLINIC	☐	☐	☐
WELL-BABY CLINIC	☐	☐	☐
OTHER (please specify _____)			

2. What outpatient medical services have you and your beneficiaries used in the *civilian* health care market within the last year?

(Please check as many as apply.)

	yourself	spouse	other beneficiaries
ALLERGY CLINIC	☐	☐	☐
AUDIOLOGY CLINIC	☐	☐	☐
CARDIOLOGY CLINIC	☐	☐	☐
CLINICAL DIETETICS	☐	☐	☐
COMMUNITY HEALTH NURSING	☐	☐	☐
DERMATOLOGY CLINIC	☐	☐	☐
EAR, NOSE & THROAT CLINIC	☐	☐	☐
EEG & EVOKED POTENTIAL STUDIES CLINIC	☐	☐	☐
EMERGENCY ROOM	☐	☐	☐
GENERAL MEDICINE CLINIC	☐	☐	☐
HEALTH MAINTENANCE CLINIC	☐	☐	☐
INTERNAL MEDICINE CLINIC	☐	☐	☐
LABORATORY (PATHOLOGY)	☐	☐	☐
NUCLEAR MEDICINE	☐	☐	☐
OBSTETRICS/GYNEGOLOGY CLINIC	☐	☐	☐
OPHTHALMOLOGY CLINIC	☐	☐	☐
OCCUPATIONAL THERAPY CLINIC	☐	☐	☐
OPTOMETRY CLINIC	☐	☐	☐
ORTHOPEDIC CLINIC	☐	☐	☐
PEDIATRIC CLINIC	☐	☐	☐
PHYSICAL THERAPY CLINIC	☐	☐	☐
PODIATRY CLINIC	☐	☐	☐
PSYCHIATRY CLINIC	☐	☐	☐
RADIOLOGY (X-RAY)	☐	☐	☐
SOCIAL WORK SERVICE	☐	☐	☐
SURGICAL CLINIC	☐	☐	☐
UROLOGY CLINIC	☐	☐	☐
WELL-BABY CLINIC	☐	☐	☐
OTHER (please specify _____)			

3. Please feel free to provide any comments in the space below.

_____

_____

_____

_____

_____

APPENDIX G

PHASE I SURVEY: DEMOGRAPHIC PROFILE

DEMOGRAPHIC PROFILE - PHASE I SURVEY RESPONDENTS

CHARACTERISTICS OF THE SAMPLE

CHARACTERISTIC	% OF RESPONDENTS	NUMBER
-- SEX		
Male	89.9	1181
Female	9.4	123
No response (NR)	0.7	9
-- AGE BRACKET		
27-36 years	0.5	7
37-46 "	11.9	156
47-56 "	37.0	486
57-66 "	36.2	476
67-76 "	11.7	154
Over 76	1.8	24
NR	0.8	10
-- LENGTH RETIRED FROM SERVICE		
0-1 years	3.0	40
1-3 "	6.1	80
3-5 "	5.9	78
5-7 "	5.4	71
7-9 "	6.3	83
Over 9 years	70.5	926
NR	2.7	35
-- DISTANCE FROM FT. KNOX		
0-5 Minutes	4.9	64
5-15 "	39.9	524
15-25 "	26.0	342
25-35 "	17.4	229
35-45 "	8.0	105
> 45 "	3.0	40
NR	0.7	9

CHARACTERISTIC	% OF RESPONDENTS	NUMBER
-- ELIGIBLE BENEFICIARIES		
0	13.3	174
1	56.7	744
2	15.2	200
3	7.5	98
> 3	5.6	74
NR	1.7	23
-- LENGTH OF TIME IN AREA		
0-6 Months	1.4	18
6-12 Months	1.6	21
1-2 Years	3.1	41
2-3 Years	3.7	48
3-4 Years	3.1	41
> 4 Years	85.5	1123
NR	1.6	21

*** Of interesting note on the demographics information **** only 20 respondents of 1313 refused or neglected to provide their names.

CHARACTERISTIC	MEAN, $\bar{X}$	STANDARD DEVIATION, S
Age	56.76 years	9.32 years
Time Retired	8.48 years	2.81 years
Distance	19.41 minutes	11.5 minutes
Beneficiaries	1.34 persons	1.0 person
Time in Area	4.18 Years	0.7 Years

APPENDIX H

PHASE I SURVEY: ZIP CODES UTILIZED

PHASE I SURVEY: ZIP CODES UTILIZED

ZIP CODE	LOCATION (all cities in Kentucky)
40120	Ft. Knox
40109	Brooks
40160	Radcliff
40162	Radcliff
40175	Vine Grove
40272	Valley Station
40165	Shepherdsville
40146	Irvington
40155	Muldraugh
40143	Hardinsburg
40150	Lebanon Junction
40108	Brandenburg
40178	Westview
40152	McDaniels
40177	West Point
42701	Elizabethtown

APPENDIX I

PHASE I SURVEY: TOTAL CLINIC UTILIZATION FIGURES

CLINIC UTILIZATION FIGURES

CIVILIAN	NO. USED AT IACH	% OF IACH USE	NO. USED AT CIV	% OF CIV USE
1. Allergy	150	1.5	57	2.4
2. Audiology	173	1.7	23	1.0
3. Cardiology	254	2.5	86	3.6
4. Clinical Diet	117	1.2	16	0.7
5. Dermatology	314	3.1	77	3.2
6. ENT	308	3.1	102	4.3
7. EEG	108	1.1	36	1.5
8. Emergency Room	805	8.0	170	7.2
9. General Medicine	1244	12.4	372	15.7
10. Health Maintenance	289	2.9	51	2.1
11. Internal Medicine	733	7.3	181	7.7
12. Lab	1049	10.4	222	9.4
13. Nuclear Medicine	177	1.8	19	0.8
14. OB/GYN	349	3.5	104	4.4
15. Ophthalmology	385	3.8	66	2.8
16. Occupational Therapy	71	0.7	4	0.2
17. Optometry	914	9.1	219	9.3
18. Orthopedics	355	3.5	69	2.9
19. Pediatric	115	1.1	21	0.9
20. Physical Therapy	236	2.4	18	0.8
21. Podiatry	164	1.6	19	0.8
22. Psychiatry	60	0.6	18	0.8
23. Radiology	1048	10.4	233	9.9
24. Social Work Service	29	0.3	11	0.5
25. Surgical	317	3.2	104	4.4
26. Urology	224	2.2	47	2.0
27. Community Health	26	0.3	13	0.5
28. Well Baby	19	0.2	7	0.3
TOTALS	10033	100%	2365	100%

[TOTAL CLINICS USED = 12,398]

IACH % of total = 80.9%
Civilian % of total = 19.1%

APPENDIX J

PHASE I SURVEY:
COMPARISON OF MEANS FOR IACH AND CIVILIAN USE

COMPARISON OF MEANS FOR IACH AND CIVILIAN USE:
SIGNIFICANCE AT 99% CONFIDENCE INTERVAL FOR
NUMBER OF CLINICS USED PER HOUSEHOLD

CATEGORY	$\bar{X}$[a]	S	N	Z[b]
[IACH USE:]				
IACH USE ONLY	7.90	6.20	714	-0.96
IACH & Civ (resurvey)	8.35	6.19	340	0.70
IACH & Civ (not-resur)	8.58	5.83	181	1.00
-- AGGREGATE IACH USE	8.12	6.16	1235	-
[CIVILIAN USE:]				
Civilian USE ONLY	6.18	4.34	78	5.41*
Civ & IACH (Resurvey)	4.43	3.62	340	2.53
Civ & IACH (not resur)	2.09	1.97	181	-6.89*
-- AGGREGATE CIVILIAN USE	3.95	3.59	599	18.65*

a - Unit of measure is number of clinics used per household
b - Z at 99% confidence interval; alpha equal to 0.01
* - Indicates highly significant at levels measured

At 99% confidence interval:
Ho: $\bar{X}$ = aggregate mean clinics and no difference in mean of clinic use.
Hl: $\bar{X} \neq$ aggregate mean clinics and significant difference in mean of clinis use

At 0.01 significant level (alpha range: -2.58, 2.58)
1) Reject Ho if Z score of sample mean outside range.
2) Accept Ho if Z score of sample mean inside range.

WHERE: $\bar{X} = \frac{\Sigma f(X)}{N}$; $S = \sqrt{\frac{\Sigma fX^2}{N} - \left(\frac{\Sigma fX}{N}\right)^2}$; $Z = \frac{\bar{X}_1 - \bar{X}_2}{S_{\bar{X}_1 - \bar{X}_2}}$

[SOURCE: Cangelosi, et al; Basic Statistics: A Real World Approach, New York: West Publishign Company, 1979, p. 172]

APPENDIX K

PHASE I SURVEY: RECAP OF NEGATIVE COMMENTS

RECAP OF NEGATIVE COMMENTS: PHASE I SURVEY

COMPLAINT:	% OF TOTAL
1. Availability of Appointments	49.8
2. Overall poor quality/misdiagnosis	8.9
3. Perceived 2nd class citizen status	7.4
4. Too long wait in clinic	5.3
5. Unavailable specialties	4.6
6. Rude staff	4.3
7. Prescription not in Pharmacy	3.8
8. Not enough doctors	3.4
9. Must go through General Medicine Clinic	2.6
10. Rude doctors	1.9
11. Medical records mixed up/lost	1.9
12. Rude nurses	1.4
13. Lack of handicap facilities	0.9
14. Too far to travel	0.9
15. Poor doctor/patient communication	0.7
16. Continuity of care	0.5
17. Pharmacy too crowded	0.5
18. Use of unauthorized beneficiaries	0.5
19. Lack of hospital rule enforcement	0.3
20. Clinic hours not convenient	0.3

COMPARISON OF NEGATIVE COMMENTS AMONG CATEGORIES OF CARE USED

TOTAL PRIORITY ALL CATEGORIES:		ONLY IACH USE	ONLY CIVILIAN USE	IACH & CIV (RESURVEY)	IACH & CIV (NOT RESUR)
Complaint:	(% - Rank)	% - Rank	% - Rank	% - Rank	% - Rank
Avail of Appts	49.8 - 1	64.7 - 1	27.3 - 1	40.0 - 1	47.1 - 1
Poor quality	8.9 - 2	1.8 - 8	27.3 - 2	12.1 - 2	9.8 - 3
2nd Class citizen	7.4 - 3	3.6 - 5	15.1 - 3	7.3 - 4	15.7 - 2
Too long wait	5.3 - 4	4.2 - 3	9.1 - 4	6.1 - 5	3.9 - 5
Unavailable Specialties	4.6 - 5	7.8 - 2	---	3.0 - 8	2.0 - 6
Rude Staff	4.3 - 6	---	---	9.1 - 3	5.9 - 4
Prescription Not Avail	3.8 - 7	2.4 - 7	6.1 - 5	5.4 - 7	2.0 - 7
Not enough doctors	3.4 - 8	1.8 - 9	---	6.1 - 6	2.0 - 8
Must go to GMC	2.6 - 9	4.2 - 4	3.0 -7	1.2 - 11	2.0 - 9
Rude doctors	1.9 - 10	1.2 - 11	3.0 - 8	2.4 - 10	2.0 - 10
Records Mixed Up/Lost	1.9 - 11	1.8 - 10	---	3.0 - 9	---
Rude Nurses	1.4 - 12	3.6 - 6	---	---	---
Handicap Facilities	0.9 - 13	1.2 - 12	3.0 - 9	0.6 - 13	---
Too far to travel	0.9 - 14	---	6.1 - 6	0.6 - 14	2.0 - 11
Patient/doc Communication	0.7 - 15	---	---	1.2 - 12	2.0 - 12
Continuity of Care	0.5 - 16	---	---	0.6 - 15	2.0 - 13
Pharmacy Crowded	0.5 - 17	---	---	0.6 - 16	2.0 - 14
Unauthorized Beneficiaries	0.5 - 18	1.2 - 13	---	---	---
Hosp Rule Enforcement	0.3 - 19	---	---	0.6 - 17	---
Clinic Hours	0.3 - 20	---	---	---	---

APPENDIX L

PHASE I SURVEY: SUMMARY OF SIGNIFICANT COMPLAINTS

SUMMARY OF SIGNIFICANT COMPLAINTS: PHASE I SURVEY

TOTAL: ALL CATEGORIES

Complaint	PERCENT
Avail of Appts	49.8
Quality of Care	8.9
2nd Class Citizen	7.4
Too long wait in clinic	5.3
Unavailable specialties	4.6

ONLY IACH USE:

Complaint	PERCENT
Avail of appts	64.7
Unavailable specialties	7.8
Too long wait in clinic	4.2
Must use GMC	4.2
2nd class citizen	3.6
Rude Nurses	3.6

ONLY CIVILIAN USE:

COMPLAINT	PERCENT
Avail of appts	27.3
Overall quality	27.3
2nd class citizen	15.1
Too long wait in clinic	9.1
Prescription unavailable	6.1

IACH & CIV (Resurveyed):

Complaint	Percent
Avail of Appts	40.0
Overall Quality	12.1
Rude staff	9.1
2nd class citizen	7.3
Too long wait in clinic	6.1
Not enough doctors	6.1

IACH & CIV (NOT Resurveyed)

Complaint	PERCENT
Avail of appts	47.1
2nd class citizen	15.7
Overall quality	9.8
Rude staff	5.9
Too long wait in Clinic	3.9

APPENDIX M

PHASE TWO QUESTIONNAIRE

Dear Health Care Beneficiary,

Due to the overwhelming response by the retiree population, such as yourself, to the medical care survey conducted in February 1986, some further information is needed to assist us in making positive changes here at Ireland Army Community Hospital. Please take a few minutes of your time to help us and complete this second questionnaire.

Your input has great value and can help to create a better environment for all health care beneficiaries. We are constantly striving to improve our services and to meet the health care needs of this community. You, the consumer, are our best source of guidance and information.

Your responses will be compiled with other answers so that Ireland Army Community Hospital can use the information to continue to provide you the level of care you expect and deserve. Again, all answers and remarks will be kept confidential.

Please fold the survey along the indicated lines and drop it in the mail to us at your earliest convenience. The postage has been prepaid.

We wish you continued good health in the future and truly appreciate your cooperation.

Sincerely,

George W. Ward, Jr.
Colonel, Medical Corps
Commander

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 12002 WASHINGTON, D.C.

POSTAGE WILL BE PAID BY DEPARTMENT OF THE ARMY

DEPARTMENT OF THE ARMY
IRELAND ARMY COMMUNITY HOSPITAL
ATTN: Administrative Resident
Fort Knox, Kentucky 40121-5278

PLEASE SHARE YOUR THOUGHTS

BECAUSE WE CARE

00492

IRELAND ARMY COMMUNITY HOSPITAL

HEALTH CARE QUESTIONNAIRE

PLEASE CHECK ONLY ONE BLOCK FOR EACH QUESTION

1. ARE THE OPERATING HOURS OF THE CLINIC(S) CONVENIENT TO YOU?

   YES ☐ NO ☐ SOMEWHAT ☐ NA ☐

2. ON AVERAGE HOW MANY TIMES DID YOU CALL THE CLINIC(S) BEFORE GETTING THROUGH TO MAKE AN APPOINTMENT?

   1-2 ☐ 3-4 ☐ 5-6 ☐ 7-8 ☐ MORE THAN 8 TIMES ☐

3. ON AVERAGE HOW LONG DID YOU HAVE TO WAIT FOR YOUR APPOINTMENT?

   1-3 DAYS ☐ 4-7 DAYS ☐ 1 WEEK ☐ 2 WEEKS ☐ 3 WEEKS ☐ ONE MONTH ☐ MORE THAN 2 MONTHS ☐ MORE THAN 3 MONTHS ☐ NA ☐

4. DID YOU CONSIDER [illegible]

   YES ☐ NO ☐ SOMEWHAT ☐ NA ☐

5. WHEN YOU CALLED TO MAKE YOUR APPOINTMENT, WERE YOU TREATED COURTEOUSLY?

   YES ☐ NO ☐ SOMEWHAT ☐ NA ☐

6. WAS THE ATTITUDE OF THE RECEPTIONIST PLEASANT AND COURTEOUS WHEN YOU CAME IN FOR YOUR APPOINTMENT?

   YES ☐ NO ☐ [illegible]

7. WAS THE HOSPITAL CLE[illegible]

   YES ☐ NO ☐ [illegible]

8. DID YOU HAVE TROUBLE LOCATING THE CLINIC(S) WITHIN THE HOSPITAL?

   YES ☐ NO ☐ SOMEWHAT ☐ NA ☐

9. DID YOU HAVE TROUBLE LOCATING YOUR MEDICAL RECORDS IN THE HOSPITAL?

   YES ☐ NO ☐ SOMEWHAT ☐ NA ☐

10. DID THE DOCTOR TAKE TIME TO ANSWER ALL YOUR QUESTIONS?

    YES ☐ NO ☐ SOMEWHAT ☐ NA ☐

11. DID THE DOCTOR EXPLAIN HIS/HER INSTRUCTIONS CLEARLY ENOUGH FOR YOU TO UNDERSTAND?

    YES ☐ NO ☐ SOMEWHAT ☐ NA ☐

12. WAS THE NURSING STAFF HELPFUL TO YOU?

    YES ☐ NO ☐ SOMEWHAT ☐ NA ☐

13. HAVE YOU UTILIZED THE CHAMPUS OFFICE IN THE HOSPITAL?

    YES ☐ NO ☐ NA ☐ DID NOT KNOW IT EXISTED ☐

14. HAVE YOU UTILIZED THE PATIENT REPRESENTATIVE'S SERVICE WITHIN THE HOSPITAL?

    YES ☐ NO ☐ NA ☐ DID NOT KNOW IT EXISTED ☐

15. [illegible]

    YES ☐ NO ☐ SOMEWHAT ☐ NA ☐

16. [illegible]

    [illegible] NA ☐

17. [illegible]

    YES ☐ NO ☐ NA ☐

18. [illegible]

19. [illegible] NA ☐

20. IN A TRUE MEDICAL EMERGENCY WOULD YOU USE [illegible] COMMUNITY HOSPITAL?

    YES ☐ NO ☐ [illegible] ☐ NA ☐

WHAT SUGGESTIONS [illegible] IMPROVING THE MEDICAL CARE YOU RECEIVED IN THIS HOSPITAL?

____

____

____

____

____

[illegible]

APPENDIX N

PHASE II SURVEY: RECAP OF NEGATIVE COMMENTS

RECAP OF NEGATIVE COMMENTS: PHASE II SURVEY

COMPLAINT:	% OF TOTAL
1. AVAILABILITY OF APPOINTMENTS	43.2
2. Not enough doctors	12.9
3. Rude Staff	7.6
4. 2nd class citizen status	6.1
5. Prescription not in Pharmacy	4.5
6. Overall poor quality/misdiagnosis	3.8
7. Records mixed up/lost	3.8
8. Unavailable specialties	3.0
9. Poor patient/doctor communication	3.0
10. Pharmacy too crowded	2.3
11. Rude doctors	1.5
12. Rude nurses	1.5
13. Continuity of care	1.5
14. Lack of hospital rule enforcement	1.5
15. Clinic hours not convenient	1.5
16. Lack of handicap facilities	0.8
17. Use by unauthorized beneficiaries	0.8
18. Too long wait in clinic	0.8

APPENDIX O

PHASE II SURVEY: RESULTS OF QUESTIONNAIRE

PHASE II SURVEY: RESULTS OF THE QUESTIONNAIRE

QUESTION:	(n)	(%) YES	(%) NO	(%) SOMEWHAT	(%) NA
1. Are the operating hours of the clinic(s) convenient to you?	227	83.7	3.1	11.5	1.8
2. When you called to make your appointment were you treated courteously?	226	83.6	3.1	10.6	2.7
3. Was the attitude of the receptionist pleasant and courteous when you came in for an appointment?	225	84.9	2.7	9.8	2.6
4. Was the hospital clean?	227	93.4	1.7	4.0	0.9
5. Did the doctor take time to answer all your questions?	227	75.8	7.9	12.3	4.0
6. Did the doctor explain his/her instructions clearly enough for you to understand?	226	84.5	4.8	7.1	3.5
7. Was the nursing staff helpful?	226	80.1	2.2	6.2	11.5
8. Is this hospital able to offer you full services for your medical needs?	224	53.5	29.0	15.2	2.2

QUESTION:	(n)	(%) YES	(%) NO	(%) SOMEWHAT	(%) NA
9. Do you usually see the same physician in the same clinic when you come in for a follow-up appointment?	225	61.3	27.5	---	11.1
10. When you left after your last clinic visit, did you understand your medical problem?	227	76.2	6.6	13.2	4.0
11. Did you have trouble locating the clinic(s) within the hospital?	226	5.8	85.4	6.6	2.2
12. Did you have trouble locating your medical records in the hospital?	225	5.4	85.3	7.1	2.2
13. Do you feel the civilian health care you receive is better than the military care you receive?	225	27.5	50.7	13.3	8.4

QUESTIONS:	(n)	(%) YES	(%) NO	(%) MAYBE	(%) NA
14. Would you use our clinic(s) again?	226	86.7	2.2	10.2	0.9
15. In a true medical emergency would you use Ireland Army Community Hospital?	228	79.8	10.5	9.6	0.0

	(n)	(%) YES	(%) NO	(%) NA	(%) DID NOT KNOW IT EXISTED
16. Have you utilized the CHAMPUS office in the hospital?	227	35.6	56.0	5.3	3.1
17. Have you utilized the Patient Representative's office in the hospital?	224	17.4	74.1	2.2	6.2

18. On average how many times did you call the clinic before getting through to make an appointment?

1-2:	19.3%	7-8:	7.8%
3-4:	23.4%	More than 8	36.2%
5-6:	13.3%		

(n) = 218

19. On average how long did you have to wait for your appointment?

1-3 days:	8.1%	One Month:	33.9%
4-7 days:	4.1%	> two months:	15.4%
1 week:	4.5%	> three months:	14.0%
2 weeks:	6.8%	NA:	3.6%
3 weeks:	9.5%		

(n) = 221

20. Did you consider this wait to be too long?

YES: 54.3% NO: 22.8% SOMEWHAT: 19.6% NA: 3.2%

(n) = 219

(n) = number responding to each question

N = 238; total number of responses to survey

APPENDIX P

PHASE II SURVEY: SUMMARY RANKING OF AREAS SURVEYED

PHASE II SURVEY:
SUMMARY RANKING OF AREAS SURVEYED

RANK AREA:	% RESPONDING FAVORABLY
1. Clean Hospital	93.4
2. Use our clinics again	86.7
3. Pleasant receptionist	84.9
4. Doctor explain instructions	84.5
5. Convenient operation hours	83.7
6. Treated courteously when calling	83.6
7. Nursing staff helpful	80.1
8. Emergency use of hospital	79.8
9. Understand medical problem	76.2
10. Doctor answers all your questions	75.8
11. See same physician	61.3
12. Full services available	53.5
13. Use CHAMPUS	35.6
14. Use Patient Representative	17.4

APPENDIX Q

PHASE II SURVEY: COMPARISON OF AGGREGATE RESPONSES AND CIVILIAN-ONLY USE RESPONSES

COMPARISON OF AGGREGATE RESPONSES AND CIVILIAN-ONLY USE RESPONSES

AREA	AGGREGATE % RESPONDING FAVORABLY	CIVILIAN ONLY % RESPONDING FAVORABLY	DECREASE IN PERCENTAGE
Clean hospital	93.4	85.7	(7.7)
Use Clinics Again	86.7	57.1	(29.6)
Pleasant Receptionist	84.9	62.0	(22.9)
Doctor Explain Instructions	84.5	47.6	(36.9)
Convenient Operating Hrs	83.7	57.1	(26.6)
Treated Courteously When Calling	83.6	50.0	(33.6)
Nursing Staff Helpful	80.1	66.7	(13.4)
Emergency Use of Hospital	79.8	68.2	(11.6)
Understand Medical Problem	76.2	38.1	(38.1)
Doctor Answers Questions	75.8	42.9	(32.9)
See same physician	61.3	14.3	(47.0)
Full services available	53.5	38.1	(15.4)
Use CHAMPUS	35.6	28.6	(7.0)
Use Patient Representative	17.4	4.8	(12.6)

APPENDIX R

SELECTED BIBLIOGRAPHY

SELECTED BIBLIOGRAPHY

BOOKS

Anderson, Ronald; Kasper, Judith; Frankel, Martin; and Associates. Total Survey Error: (Applications to Improve Health Surveys), San Francisco: Jossey-Bass Publishers, 1979.

Browne, William P., and Olson, Laura Katz. Aging and Public Policy (The POlitics of Growing Old in America), Westport, CT: Greenwood Press, 1983.

Cangelosi, Vincent E.; Taylor, Phillip A.; and Rise, Philip E., Basic Statistics: A Real World Approach, New York: West Publishing Company, 1979.

Cannell, Charles F.; Oksenberg, Lois; and Converse, Jean M., Experiments in Interviewing Techniques: Field Experiments in Health Reporting 1971-1977, Ann Arbor, MI: Institute for Social Research, The University of Michigan, 1979.

Cooper, Philip D., Health Care Marketing, Germantown, MD: Aspen Systems Corporation, 1979.

Cooper, Philip D.; Jones, Karen M.; and Wong, John K., An Annotated and Extended Bibliography of Health Care Marketing, Chicago: American Marketing Association, 1984.

Cranford, Ronald E., M.D.; Doudera, A. Edward, J.D., Institutional Ethics Committees and Health Care Decision Making, Ann Arbor, MI: Health Administration Press, 1984.

Drucker, Peter F., Management: Tasks, Responsibilities, Practices, New York: Harper & Row, 1973.

Glock, Charles Y., Survey Research in the Social Sciences, New York: Russell Sage Foundation, 1967.

Gopal, M. H., Introduction to Research Procedure in Social Sciences, New York: Asia Publishing House, 1970.

Green, Paul E., and Tull, Donald S., Research for Marketing Decisions, Englewood Cliffs, NJ: Prentice-Hall, Inc., 1975.

Hyman, Herbert H., Secondary Analysis of Sample Surveys: (Principles, Procedures, and Potentialities), New York: John Wiley & Sons, Inc., 1972.

Hyman, Herbert H., Survey Design & Analysis, Chicago: Free Press, 1955.

Kotler, Phillip., Marketing for Nonprofit Organizations, Englewood Cliffs, NJ: Prentice-Hall, Inc., 1975.

MacStravic, Robin M., Marketing Health Care, Germantown, MD: Aspen Systems Corp., 1977.

McMillan, Norman H., Marketing Your Hospital: A Strategy for Survival, Chicago: American Hospital Publishing, Inc., 1981.

Murphy, Edmond A., M.D., Biostatistics in Medicine, Baltimore: The John Hopkins University Press, 1982.

Ulrich, Dave., Organizational Surveys: Development & Application, Fort Ord, CA: Organizational Effectiveness Center & School, 1983.

PERIODICALS

Anderson, Douglas C., "The Satisfied Consumer: Service Return Behavior in the Hospital Obstetrics Market." Journal of Health Care Marketing, 2(4), [illegible] 1982, pp. 25-33.

Anderson, Douglas C. and Near, Raina. "Something May Not Be Working In Hospitals - But Is It Marketing?" Journal of Health Care Marketing, 3(1), Winter 1983, pp. 49-55.

Andrus, David. "Factors Affecting Rural Consumers' Satisfaction with Medical Care." Journal of Health Care Marketing, 4(3), Summer 1984, pp. 7-15.

Austin, Carol D., Ph.D., "Caring for the Aging Veteran." Continuing Care Coordinator, November-December 1985, pp. 18-21.

Bartlett, Pamela J.; Schewe, Charles D.; and Allen, Chris T., "Marketing Orientation: How do Hospital Administrators Compare with Marketing Managers?" Health Care Management Review, 9 (1), Winter 1984, pp. 77-86.

Beckman, Daniel J., "What Makes Hospital Marketing Tick?" Healthcare Executive, 1(1), November-December 1985, pp. 43-45.

Belinoff, Robert. "Marketing your Center: Lessons 1 through 5." Medicenter Management, 3(1), January 1986, pp. 29-30.

Berger, Sally. "Marketing Won't Solve Problems." Modern Healthcare, 13(4), April 1983, pp. 94-96.

Bonnem, Shirley. "Pediatric Health Care Promotion, Participation Despite Pitfalls and Problems." Journal of Healthcare Marketing, 2(2), Spring 1982, pp. 45-47.

Boscarino, Joseph and Steiber, Steven R., "Hospital Shopping and Consumer Choice." Journal of Healthcare Marketing, 2(2), Spring 1982, pp. 15-23.

Bromberg, Michael. "The Medical-Industrial Complex: Our National Defense." The New England Journal of Medicine, 309(21), November 24, 1983, pp. 1314-1315.

Brown, Steven W., "Candid Observations on the Status of Health Services Marketing." Journal of Health Care Marketing, 3(3), Summer 1983, pp. 45-52.

Brown, Steven W., Ph.D., and Morley, Andrew P., Jr., M.d., "Marketing Through The Medical Staff." Healthcare Executive, 1(2), January-February 1986, pp.45-47.

Carnazzo, Joseph S., "Demand Forecasting for Magnetic Resonance Imaging Systems." Hospital and Health Services Administration, 30(2), March-April 1985, pp. 84-91.

Carroll, Norman V., and Gagnon, Jean P., "Identifying Segments in Health Services Markets: An Application of Conjoint and Cluster Analyses to the Ambulatory Care Pharmacy Market." Journal of Healthcare Marketing, 3(3), Summer 1983, pp. 22-34.

Casarreal, Kenia M., Ph.D.; Mills, Jack D.; and Plant, Mary A., "Improving Service through Patient Surveys in a Multihospital Organization." Hospital and Health Services Administration, 31(2), March-April 1986, pp. 41-52.

Clarke, Roberta N., and Shyavitz, Linda. "Marketing Information and Market Research - Valuable Tools for Managers." Health Care Management Review, 6(1), Winter 1981, pp. 73-77.

Clarke, Roberta N., and Shyavitz, Linda. "Market Research: When, Why and How." Health Care Management Review, 7(4), Winter 1982, pp. 29-34.

Clarke, Roberta N., and Shyavitz, Linda. "Strategies for a Crowded Marketplace." Health Care Management Review, 8(3), Summer 1983, pp. 45-51.

_____, "Consumer Gripes About Hospital Services Drop." Hospitals, 60 (7), April 5, 1986, p. 60.

Cooper, Charles D., COL, USAF-Ret., "Military Medicine - A New Prescription." The Retired Officer, XLII(8), August 1986, pp. 24-28.

diMonda, Richard. "A Reaction to Demand Forecasting for MRI Services." Hospital and Health Services Administration, 30(2), March-April 1985, pp. 92-94.

_____, "Direct Marketing Prompts Response, Results." Hospitals, 60(8), April 20, 1986, p. 60.

Doering, Elaine R., "Factors Influencing Inpatient Satisfaction with Care." Quality Review Bulletin, 9(10), October 1983, pp. 291-298.

Drachman, David A., "A Community Marketing Survey of a Proposed Ambulatory Care Facility." Journal of Health Care Marketing, 3(2), Spring 1983, pp. 51-55.

Dwyer, F. R., Ph.D., and Kolbe, Richard H., "Marketing Imperatives for Hospice and Hospitals: Implications of Hospice Headway." Hospitals and Health Services Administration, 31(2), March - April 1986, pp. 94-108.

Falkson, Joseph L., and Leavitt, Henry. "Strategic Planning and Hospitals: A Business Perspective." Hospitals, August 1, 1982, pp. 51-56.

Finn, Maureen. "Pastoral Care: Marketing 'High Touch'". Health Progress, 67(1), January-February 1986, pp. 50-52.

Fleming, Gretchen B., Ph.D., "Using Consumer Evaluations of Health Care." Hospital Progress, Vol. 60, August 1979, pp. 54-68.

Francese, Peter K., "Healthcare's Future, the Demographic Perspective." Healthcare Executive, 1(1), November-December 1985, pp. 26-28.

Franklin, Daniel P., "Health Care Marketing: An Emerging Discipline." Medicenter Management, 3(1), January 1986, pp. 33-35.

Freiberg, Lewis. "Hospital Utilization: Estimation & Simulation Tools for the Development of Systematic Plans and Marketing Strategies." Journal of Health Care Marketing, 1(4), Fall 1981, pp. 32-48.

Froebe, Doris. et al., "Variables Influencing the Consumer's Choice of Nursing Homes." Journal of Health Care Marketing, 2(2), Spring 1982, pp. 25-33.

Gentile, Benedict and Mistarz, Joellen. "Nursing Home Market Attracts Multis: Survey." Hospitals, 59(11), pp. M24-M26.

George, William R., and Comptom, Fran F., "How to Initiate a Marketing Perspective in a Health Services Organization." Journal of Health Care Marketing, 5(1), Winter 1985, pp. 29-37.

Gifford, James F., and Anlyan, William G., "The Role of the Private Sector in an Economy of Limited Health-Care Resources." The New England Journal of Medicine, 300(14), April 5, 1979, pp. 790-793.

Graff, Louis. "On Patient Satisfaction, Marketing, Research, and Other Useful Things." Hospitals, 53(2), January 16, 1979, pp. 59-62.

Gray, James. "The Selling of Medicine, 1986." Medical Economics, January 20, 1986, pp. 180-194.

Gregory, Douglas.; Kingstrom, Paul; and Reardon, Timothy. "Planning Models for Outpatient Care: A Marketing Approach." Journal of Health Care Marketing, 2(1), Winter 1982, pp. 21-30.

Griffith, Mary J., and Wells, James A., "Awareness by Consumers and the Adoption of a New Service: An HMO Example." Journal of Health Care Marketing, 4(1), Winter 1984, pp. 17-24.

Griffith, Mary J., and Baloff, Nicholas. "Start-Up Analysis for Marketing Strategy." Journal of Health Care Marketing, 4(3), Summer 1984, pp. 17-26.

Haber, Paul A., "Extended Care: The VA's Program for the Aging." Continuting Care Coordinator, 4(10), November-December 1985, pp. 18-21.

Hardy, Gail. "A Simple Tool for Early Patient Involvement." Continuing Care Coordinator, 4(8), September 1985, pp. 31-2.

Harrell, Gilbert D., and Fors, Matthew F., "Marketing Ambulatory Care to Women: A Segmentation Approach." Journal of Health Care Marketing, 5(2), Spring 1985, pp. 19-28.

Hawes, Jon M., and Rao, C. P., "Using Importance - Performance Analysis to Develop Health Care Marketing Strategies." Journal of Health Care Marketing, 5(4), Fall 1985, pp. 19-25.

Heckler, Margaret M., "Medicare Turns 20 as America Grays." Hospitals, 59(3), February 1, 1985, pp. 59-62.

Heffring, Michael P.; Neilsen, E.J., Szklarz, J.J.; and Dobson, G. S., "High Tech, High Touch: Common Denominators in Patient Satisfaction." Hospital and Health Services Administration, 31(2), March-April 1986, pp. 81-93.

Henderson, Tim M., "No Frills Marketing of Community-Based Primary Care." Journal of Health Care Marketing, 5(1), Winter 1985, pp. 47-50.

Hisrich, Robert D., and Peters, Michael J., "Comparison of Perceived Hospital Affiliation & Selection Criteria by Primary Market Segments." Journal of Health Care Marketing, 2(3), Summer 1982, pp. 24-30.

Inguanzo, Joe M., Ph.D., and Harju, Mark. "Creating a Market Niche." Hospitals, 59(1), January 1, 1985, pp. 62-67.

Inguanzo, Joe M., Ph.D., and Harju, Mark. "Are Consumers Sensitive to Hospital Costs?" Hospitals, 59(3), February 1, 1985, pp. 68-69.

Inguanzo, Joe M., Ph.D., and Harju, Mark. "What Makes Consumers Select a Hospital?" Hospitals, 59(6), March 16, 1985, pp. 90-94.

Inguanzo, Joe M., Ph.D., and Harju, Mark. "How Do Consumers Receive Local Health Care Information?" Hospitals, 59(7), April 1, 1985, pp. 74-76.

Inguanzo, Joe M., Ph.D., and Harju, Mark. "Consumer Satisfaction with Hospitalization." Hospitals, 59(9) May 1, 1985, pp. 81-83.

Inguanzo, Joe M., Ph.D., and Harju, Mark. "What's the Market for Emergency Care?" Hospitals, 59(11), June 1, 1985, pp. 53-4.

Inguanzo, Joe M., Ph.D., and Harju, Mark. "Affluent Consumers Most Discriminating: Survey." Hospitals, 59(19) October 1, 1985, pp. 84-86.

Jensen, Joyce. "Consumers Who Notice Ads Recall Messages." Modern HealthCare, 16(8), April 11, 1986, pp. 84-85.

Jensen, Joyce, and Miklovic, Ned. "Consumer Satisfaction with Physicians Is High." Modern HealthCare, 16(3), February 14, 1986, pp. 60, 63.

Johnson, William E., Jr., "A New Age for HealthCare Marketing." Healthcare Executive, 1(1), November-December 1985, p. 12.

Kaufman, Nathan. "Healthcare Marketing: Back to Basics." Healthcare Executive, 1(1), November-December 1985, pp. 20-23.

Keckley, Paul H., Ph.D., "Using and Misusing Marketing Research in the Healthcare Industry." Healthcare Financial Management, December 1985, pp. 31-35.

Keith, Jon G., "Marketing Health Care: What the Recent Literature Is Telling Us." Hospital and Health Services Administration, 26(6), Special II 1981, pp. 66-83.

Kent, Fraser. "Miami's Elderly: The Future of Health Care?" Hospitals, 60(6), March 20, 1986, pp. 58-63.

Kingstrom, Paul O., "Patient Ties to Ambulatory Care Providers: The Concept of Provider Loyalty." Journal of Health Care Marketing, 3(2), Spring 1983, pp. 27-34.

Kinzer, David M., "Predictions too Rosy, Solutions too Pat." Hospitals. 55(18), Spetember 16, 1981, pp. 105-114.

Kurz, Richard S., and Wolinsky, Frederic D., "Who Picks the Hospitals: Practitioner or Patient?" Hospital and Health Services Administration, 30(2), March-April 1985, pp. 95-106.

Lesparre, Michael. "Washington in 1985: Focus on Saving Medicare." Hospitals, 59(1), January 1, 1985, pp. 68-73.

Loevy, Sara S., "Rationing Health Care." Quality Review Bulletin, Journal of Quality Assurance, 11(7), July 1985, pp. 210-212.

Ludke, Robert L., Curry, James P., and Saywell, Robert M., Ph.D., "The Community Survey and the Health Services Provider." Journal of Health Care Marketing, 3(4), Fall 1983, pp. 39-52.

MacStravic, Robin S., "Cognitive Commitments in Health Services Marketing." Health Care Management Review, 10(3), pp. 11-17.

MacStravic, Robin S., "Macro-Marketing in Health Care." Hospitals and Health Services Administration, 28(3), May-June 1983, pp. 54-61.

Mages, Patrick M., "Can Hospitals Survive? They Must! Can Hospitals Change? It's Time!" Journal of Health Care Marketing, 2(3), Summer, 1982, pp. 6-9.

Mayer, William, M.D., "Health Matters: A Civilian-Military Partnership in Military Medical Excellence." Military Medicine, 1(4), September 1985, p. A13.

McMillan, James R., Younger, Mary Sue; DeWine, Larry C., "Satisfaction with Hospital Emergency Department as a Function of Patient Triage." Helth Care Management Review, 11(3), Summer 1986, pp. 21-27.

_____, "Medicare DRGs Pose Problems for Elderly." Hospitals, 59(24), December 16, 1985, pp. 75-76.

Milch, Robert A., "Product-Market Differentiation: A Strategic Planning Model for Community Hospital." Health Care Management Review, 5(2), Spring 1980, pp. 7-15.

Nelson, Arthur A., Zeinio, Robert N., and Beno, Carolyn E., "Clinical Pharmacy Services for the Chronically-Ill Patient in the Community Practice Environment." Journal of Health Care Marketing, 3(1), Winter 1983, pp. 29-45.

O'Connor, Christopher P., "Why Marketing Isn't Working in the Health Care Arena." Journal of Health Care Marketing, 2(1), Winter 1982, pp. 31-36.

Owen, David. "Medicine, Morality and the Market." The Lancet, VOL II, July 7, 1984, p. 30-31.

Paul, Terry and Wong, John. "The Retailing of Helth Care." Journal of Heath Care Marketing, 4(4), Fall 1984, pp. 23-24.

Peters, J. Irwin. "Round Table." HealthCare Executive, 1(1), November-December 1985, pp. 49-53.

Powills, Suzanne. "Hospital Marketing Invisible to Consumers." Hospitals, 60(1), January 5, 1986, pp. 66-67.

Powills, Suzanne. "Market Share: A Valuable Tool Remains Idle." Hospitals, 60(1), January 5, 1986. p. 68.

Powills, Suzanne. "Southern Region is Ready and Waiting for HMO's." Hospitals, 60(3), February 5, 1986, pp. 50-52.

Riffer, Joyce. "Elderly 21 Percent of Population by 2040." Hospitals, 59(5), March 1, 1985, pp. 41-44.

Roeder, Phillip W., and Whitler, Elmer T., "Hospital Marketing and Advertising: Public Perceptions." Kentucky Hospitals, 2(1), Winter 1985, pp. 28-31.

Rynne, Terrence J., "The Third Stage of Hospital Long-Range Planning: The Marketing Approach." Health Care Managmeent Review, 5(3), Summer 1980, pp. 7-15.

Salvatore, Tony. "Competitor Analysis in Health Care Marketing." Journal of Health Care Marketing, 4(4), Fall 1984, pp. 11-6.

Sanchez, Peter M., "Health Care Marketing at the Crossroads." Journal of Health Care Marketing, 4(2), Spring 1984, pp. 37-43.

Scammon, Debra and Kennard, Lon. "Improving Health Care Strategy Planning Through Assessment of Perceptions of Consumers, Providers and Administrators." Journal of Health Care Marketing, 3(4), Fall 1983, pp. 9-17.

Scott, Terrence J., "Marketing Study Interview: A Case Study." Journal of Health Care Marketing, 3(4), Fall 1983, pp. 53-7.

Sechrest, Lee, Ph.D., "Experiments and Demonstrations in Health Services Research." Medical Care, 23(5), May 1985, pp. 677-693.

Senne, Jerry. "Organizational Solutions for a Distressed Industry." Hospital & Health Services Administration, 31(5), Sept/Oct 1986, pp. 86-95.

Simon, John K., "Marketing the Community Hospital: A Tool for the Beleaguered Adminstrator." Health Care Management Review, 3 (Spring 1978), pp. 11-23.

Smith, Deborah W., and Shalmansky, Sherry L., "Determining the Market for Family Nurse Practitioner Services: The Seattle Experience." Nursing Research, 32(5), September-October 1983, pp. 35-39.

Smith, Paul. "Military Families Give Health Care Low Rating." Army Time, May 27, 1985, pp. 31, 43.

Smith, Sharon and Taylor, Joe. "Market Identification and Hospital Cost Containment." Journal of Health Care Marketing, 4(4), Fall 1984, pp. 43-48.

Sorco, Patricia; Tyler, Philip R., and Minno, James R., "Marketing Your Organization to the Health Services Volunteer." Journal of Health Care Marketing, 5(3), Summer, 1985, pp. 55-63.

Steiber, Steven R., Bascarino, Joseph A., and Jackson, E. D., "Hospital Marketing More Sophiscated: Survey." Hospitals, 59(21), November 1, 1985, pp. 73-77.

Strasser, Stephen; Steinberg, Joni S., Cummins, Gaylord; and Persels, Jim. "Why Some Evaluation Studies Are Useful and Others Not: Facilitators and Obstacles to the Use of Evaluation Research in Hospital Settings." Hospital and Health Services Administration, 28(1), January-February 1983, pp. 69-89.

Sturm, Arthur C., "Selling the Medical Staff and Hospital as a Package." Hospitals, May 16, 1984, pp. 98-101.

Sullivan, Gary L., "Role of Referent Selection in Primary Care Provider Choice and Satisfaction." Journal of Health Care Marketing, 4(3), Summer 1984, pp. 27-36.

Super, Kari E., "Private Hospital Bolsters its Census with Advertising, Training Program." Modern Healthcare, 16(3), February 14, 1986, pp. 60, 63.

Super, Kari. "Hospitals are Beginning to Focus on Services for Older Patients." Modern Healthcare, 16(8), April 11, 1986, pp. 80-82.

Swan, John E.; Sawyer, Jesse C.; Van Matre, Joseph G.' and McGee, Gail W., "Deepening the Understanding of Hospital Patient Satisfaction: Fulfillment and Equity Effects." Journal of Health Care Marketing, 5(3), Summer 1985, pp. 7-18.

Taylor, Susan and Rice, James A., "Assessing the Market for Long-Term Care Services." Healthcare Financial Management, February 1984, pp. 32-46.

Thompson, Gene. "Marketing and Its Reliance on Data - A New Approach For Hospital Survival." Topics in Health Record Management, 3(1), September 1982, pp. 76-83.

Tootellan, Dennis H.; Gaedeke, Ralph M.; and Gordon, Carl L., "Marketing to Public-Aid Recipients: An Examination of Pharmacy Profitability." Journal of Health Care Market, 4(4), Fall 1984, pp. 17-21.

Tucker, Francis G., and Tucker, James B., "An Evaluation of Patient Satisfaction and Level of Physician Training." Journal of Health Care Marketing, 5(3), Summer 1985, pp. 31-38.

Tucker, Stephen L., and Burr, Richard M., "Analysis Must Precede Adoption of Competitive Strategies." Hospitals, June 16, 1982, pp. 80-89.

Vraciu, Robert A., "Hospital STrategies for the Eighties: A Mid-Decade Look." Health Care Management Review, 10(4), Fall 1985, pp. 9-18.

Walters, Michael J., and Wallace, Joan. "Lessons from Non-Response in a Consumer Market Survey." Journal of Health Care Marketing, 5(1), Winter 1985, pp. 17-28.

Witt, John A., and McRoberts, Nelson L., "Marketing and Competition." Modern Healthcare, 13(4) April 1983, pp. 75-78.

Wotruba, Thomas R.; Haas, Robert W.; and Oulhen, Herve. "Marketing Factors Affecting Physician Choice as Related to Consumers' Extent of Use & Predisposition Toward Use of Physician Services." Journal of Health Care Marketing, 5(4), Fall 1985, pp. 7-17.

Wright, Richard A., and Allen, Bruce H., "Marketing and Medicine." The Journal of the American Medical Association, 250(1), July 1, 1983, pp. 47-48.

Yanish, Donna. "Hospitals Spending More Money on Advertising, Market Research. Modern Healthcare, 15(6), March 15, 1985, pp. 49-56.

Zallocco, Ronald L.; Joseph, W. Benoy; and Doremus, Harvey. "Strategic Market Planning for Hospitals." Journal of Health Care Marketing, 4(2), Spring 1984, pp. 19-28.

Zenty, Thomas F., "DRGs Are Not the Answer." Hospital and Health Services Administration, 30(6), November-December 1985, pp. 134-142.